

NORFOLK COUNTY COUNCIL.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

AND

SCHOOL MEDICAL OFFICER

FOR THE YEAR

1913,

BY

J. T. C. NASH, M.D., D.P.H.,

C.M.O. & S.M.O.

PART II.

REPORT OF THE COUNTY MEDICAL OFFICER



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INDEX.

DISTRICTS AND MEDICAL OFFICERS OF HEALTH	-	-	-	-	-	<i>Page</i> 6, 7
--	---	---	---	---	---	---------------------

SECTION I.

Area and Population	-	-	-	-	-	8
Birth Rate and Death Rate	-	.	-	-	-	9—11
Causes of Death	-	-	-	-	-	12, 13
Infantile Mortality	-	-	-	-	-	13—19

SECTION II.—INFECTIVE DISEASES.

Scarlet Fever	-	-	-	-	-	20—27
Diphtheria	-	-	-	-	-	27—33
Enteric or Typhoid Fever	-	-	-	-	-	33—37
Puerperal Fever	-	-	-	-	-	37
Erysipelas	-	-	-	-	-	37
Poliomyelitis	-	-	-	-	-	37
Small Pox	-	-	-	-	-	37—38
Measles	-	-	-	-	-	39
Whooping Cough	-	-	-	-	-	39

SECTION III.

Tuberculosis	-	-	-	-	-	40—45
Sanatorium Benefit	-	-	-	-	-	46, 47

SECTION IV.

Water Supplies	-	-	-	-	-	48—55
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INDEX—*continued.*

	<i>Page</i>
SECTION V.	
Housing and Town Planning - - -	56—90
SECTION VI.	
Pollution of Rivers, etc. - - -	91, 92
SECTION VII.	
Midwives Act - - -	93
SECTION VIII.	
Drainage and Sewerage - - -	94—99
Scavengering - - -	100—105
SECTION IX.	
Food Supplies—	
Administration of Food and Drugs Acts - -	105, 107
Action taken by Borough Councils - -	107, 108
Supervised Premises - -	108—112
SECTION X.	
Isolation Hospital Accommodation - -	113—119
SECTION XI.	
Disinfection - - -	119—122
SECTION XII.	
Miscellaneous—	
Meteorological Notes - - -	123

SANITARY ADMINISTRATION OF THE COUNTY OF NORFOLK.

Supervising Authority - - NORFOLK COUNTY COUNCIL.

County Medical Officer of Health - J. T. C. NASH, M.D., D.P.H.

The Administrative County is divided into 32 Sanitary Areas, including 2 Municipal Boroughs, 10 other Urban Districts, and 20 Rural Districts, which each appoints a Medical Officer of Health, half his salary being refunded by the County Council. The following were the District Medical Officers of Health during 1913 :—

URBAN DISTRICTS :—

Cromer
Diss
Downham Market
East Dereham
King's Lynn, M.B.
New Hunstanton
North Walsham
Sheringham
Swaffham
Thetford, M.B.
Walsoken
Wells

MEDICAL OFFICERS OF HEALTH :—

R. C. M. Colvin-Smith, M.B.
H. M. Speirs, M.D.
G. F. Cross, M.B.
D. Turner Belding, M.R.C.S.
J. R. Kingdon, M.R.C.S.
B. G. Sumpter, M.B.
J. Shepheard, M.R.C.S.
J. E. Linnell, M.B., D.P.H.
A. W. Thomas, L.R.C.P.
A. Oliver, M.D., D.P.H.
Harry Groom, M.D.
G. Calthrop, M.B.

RURAL DISTRICTS :—

Aylsham
Blofield
Depwade
Docking

Herbert H. Back, M.B.
Herbert H. Back, M.B.
F. N. H. Maidment, M.B., F.R.C.S. (Ed.)
B. G. Sumpter, M.B.

Downham	G. F. Cross, M.B.
East and West Flegg	W. Roydon, M.R.C.S.
Erpingham	J. E. Linnell, M.B., D.P.H.
Forehoe	T. Lambert Lack, M.R.C.S.
Freebridge Lynn	C. S. Woodwark, M.R.C.S.
Henstead	S. H. Burton, M.B., F.R.C.S.
Loddon and Clavering	L. T. McClintock, M.B.
Marshland	J. L. Forrest, M.B.
Mitford and Launditch	D. Turner Belding, M.R.C.S.
St. Faith's	S. H. Long, M.D.
Smallburgh	B. D. Z. Wright, M.R.C.S.
Swaffham	E. F. Rose, L.M.S.S.A.
Thetford	G. Cowan, M.B.
Walsingham	W. H. Fisher, M.B.
Wayland	E. F. Rose, L.M.S.S.A.
West Lynn	W. Webster, M.R.C.S.

With the recent exception of Dr. Wright, the District Medical Officers of Health are engaged in private practice. Legislation has added greatly to the work expected of them. Some District Councils have recently increased the salaries of their Medical Officers of Health in recognition of this; others have not.

Each District Council also appoints an Inspector of Nuisances, but not all of these have been specially trained for their duties as Sanitary Inspectors.

In compliance with the requirements of the General Order of the Local Government Board, dated July, 1910, the following Report of the County Medical Officer of Health for the year 1913 contains the following Sections :—

- (a) A digest of all Annual and Special Reports which have come to hand from the Medical Officers of Health of all County Districts within the County.
- (b) Isolation Hospital accommodation available for each County District, and steps which should be taken to remedy any deficiencies.

- (c) The Administration of the Housing of the Working Classes Acts, 1890—1909, within the County.
- (d) Water Supply of the several County Districts.
- (e) Pollution of Streams and steps taken for prevention by Local Authorities or the County Council.
- (f) Administration of the Midwives Act, 1902.
- (g) Administration of Food and Drugs Acts, 1875—1907, and supervision of Slaughter-houses, Dairies, Cowsheds and Milkshops, etc.

ADMINISTRATIVE COUNTY OF NORFOLK.

The following are some of the principal statistics :—

Area in Acres (land and inland water)	...	...	1,303,570
Census Population, 1911	...	...	321,733
Average Annual Increase (1901—1911)	...	...	1,042
Estimated Population, mid-year 1913	...	...	324,095
(The Mid-year Population is taken for statistical purposes)			
Total Number of Births, 1913	...	...	6,790
Birth Rate per 1000 Population	...	...	20·95
Total Number of Deaths Registered	...	...	3,952
Gross Death Rate	...	...	12·19
Total Number of Deaths after adding and subtracting deaths in Institutions as arranged for by the Registrar-General	...	...	4,086
Nett Death Rate	...	...	12·60
Applying Registrar-General's factor of correction for Age and Sex = 0·8020, <i>Corrected Death Rate</i>	...	...	10·10
Number of Deaths of Infants under 1 year	...	...	553
Infantile Mortality per 1000 Births	...	...	81·29
Zymotic Death Rate per 1000 Population	...	...	0·43
Phthisis	„	„	0·68
Cancer	„	„	1·29
Tuberculosis (all forms)	„	„	0·91

AREA.—There was no change during 1913 in the area of the Administrative County.

POPULATION.—Assuming that the rate of increase noted in the decade 1901—1911 continues, the mid-year population of the County in 1913 was approximately 324,095. The estimates given by the District Medical Officers of Health in many instances are merely the Census figures for their Districts, and amount to a total of 322,565 persons.

THE BIRTH RATE.—In the 12 Urban Districts 1,269 births, and in the 20 Rural Districts 5,521 births, were registered, giving on the 324,095 estimated population a birth rate for Norfolk of 20·95 in the year 1913, as compared with a birth rate of 22·3 for Rural England as a whole. It is interesting to note at last a check in the hitherto continuous decline in the birth rate. The rate for 1912 was 20·5, the lowest yet recorded.

THE DEATH RATE.—In the 20 Rural Districts 3,153 deaths, and in the 12 Urban Districts 799 deaths, were registered, giving on the estimated population of 324,095 a crude death rate for Norfolk of 12·19 in the year 1913. This compares with a crude death rate of 13·7 for England and Wales and a crude death rate of 13·1 for Rural England.

I alluded in my last Annual Report to the arrangements made by the Registrar-General, and now in force, for ensuring as far as practicable that transferable deaths are transferred to the District to which they really belong. In this way 134 more deaths were allocated to Norfolk than were actually registered in the Administrative County. These added deaths give a nett death rate of 12·6.

To obtain the *corrected* death rate (to allow for the effect of the differences of age and sex distribution in defined areas) a factor of correction is calculated. In my Report for 1912 I incorporated the standardizing factor for each Sanitary area in the Administrative County. The factor for the County as a whole is 0·8020. Applying this factor, the *corrected death rate* for the Administrative County in 1913 was 10·10, as compared with 10·57 in 1912. The standardized death rate for England and Wales in 1913 was 13·4, and for Rural England 12·1. Whereas there was a slight rise in

the death rate in England and Wales for 1913 as compared with 1912, in Norfolk the death rate in 1913 was the lowest yet recorded. Eight of the 12 Urban Districts and 13 of the 20 Rural Districts had lower death rates in 1913 than in 1912, while one (Loddon and Clavering) recorded the same death rate each year. The remaining six Rural Districts showed small increases in 1913. Swaffham U.D. had the highest nett death rate (16·28) among the Urban areas, and Sheringham the lowest (7·83). Applying the standardizing factor for age and sex distribution, it will be seen that these differences become less pronounced, the corrected rate for Swaffham being 12·24, and that for Sheringham 7·14. Besides Sheringham, the Urban Districts of Cromer, Diss, Downham Market, New Hunstanton, Walsoken, and Wells had standardized death rates of under 10 per 1000 living. Among the *Rural* Districts, the standardized death rates were under 10 in Aylsham, E. and W. Flegg, Erpingham, Forehoe, Henstead, Marshland, Mitford and Launditch, Swaffham, Thetford, Walsingham, and Wayland. In no Rural District did the rate equal 12 per 1000.

1913.

URBAN	Sanitary Area.	Nett Death		Standardizing	Standardized
		Rate per 1000	living.		
				Factor.	Death Rate.
	Cromer ...	...	8·29	1·0277	8·51
	East Dereham ...	...	12·35	·8400	10·37
	Diss ...	...	10·78	·8419	9·07
	Downham Market	...	12·80	·7252	9·28
	Hunstanton, New	...	9·12	1·0144	9·25
	Sheringham ...	...	7·83	·9125	7·14
	Swaffham ...	...	16·38	·7477	12·24
	Walsham, North	...	14·61	·8768	12·81
	Walsoken ...	...	9·97	·8682	8·65
	Wells-next-Sea ...	...	13·28	·7256	9·63
	Thetford M.B. ...	...	14·44	·8192	11·82
	King's Lynn M.B.	...	14·09	·8782	12·37
	Total Urban Districts	...	12·57	·8574	10·75

RURAL

	Aylsham ...	...	11·95	·7862	9·39
	Blofield ...	...	12·76	·8000	10·20
	Depwade ...	...	14·59	·7704	11·24
	Docking ...	...	13·38	·7803	10·44
	Downham ...	...	13·41	·8020	10·75
	Erpingham ...	...	12·11	·8196	9·92
	Flegg, E. and W. ...	...	11·27	·8018	9·03
	Forehoe ...	...	11·73	·7709	9·04
	Henstead ...	...	11·37	·7874	8·95
	Lynn, West ...	...	11·75	·9532	11·20
	Lynn, Freebridge ...	...	13·38	·7906	10·77
	Loddon and Clavering ...	...	13·46	·7731	10·40
	Marshland ...	...	11·01	·8311	9·15
	Mitford and Launditch ...	...	12·91	·7608	9·82
	St. Faith's ...	...	13·10	·8527	11·17
	Smallburgh ...	...	14·45	·7712	11·14
	Swaffham ...	...	12·67	·7792	9·87
	Thetford ...	...	11·92	·8151	9·71
	Walsingham ...	...	11·59	·8425	9·76
	Wayland ...	...	11·50	·7491	8·51
	Total Rural Districts ...	...	12·68	·7900	10·01

CAUSES OF DEATH.

SEVEN PRINCIPAL ZYMOTIC DISEASES.—The Zymotic death rate is calculated from the total deaths caused by the following seven principal Zymotic diseases: Small Pox, Scarlet Fever, Measles, Enteric Fever, Whooping Cough, Diphtheria, and Diarrhœa.

In the Administrative County of Norfolk in 1913, 13 deaths were ascribed to Enteric Fever, 14 deaths to Measles, 9 to Scarlet Fever, 47 to Whooping Cough, 11 to Diphtheria and Croup, and 47 to Diarrhœa and Enteritis. All of the 47 Whooping Cough deaths, 38 of the 47 Diarrhœa deaths, 9 of the 14 Measles deaths, 3 of the 11 Diphtheria deaths, and 1 of the 9 Scarlet Fever deaths occurred among children under 5 years of age. These figures clearly indicate the excessive fatality of Whooping Cough, Diarrhœa, and Measles among *young* children, and the importance of precautions being taken by parents, guardians, and authorities to protect *young* children from these diseases.

The following death rates are calculated for a population of 324,095.

The *Zymotic Death Rate* for the County (being the combined death rate from all the seven Zymotic diseases named above) was in 1913 0·43 per 1000 living, as compared with 0·56 in 1912. The Zymotic death rates for each individual disease were in 1913: Enteric Fever ·04, Measles ·04, Scarlet Fever ·02, Whooping Cough ·14, Diarrhœa ·14, Diphtheria ·03.

In 1913, 52 deaths were ascribed to *Influenza*, as compared with 68 deaths in 1912.

Tuberculous Diseases accounted for 295 deaths in 1913, as compared with 330 deaths in 1912. The total *Tuberculous* death rate in 1913 for Norfolk Administrative County was 0·91.

The *Phthisis* death rate was 0·68. These rates show a satisfactory continuance in the reduction of deaths from Tubercular diseases.

In 1912 the total Tuberculous death rate in Norfolk Administrative County was 1·02, and the Phthisis death rate 0·79.

INFANTILE MORTALITY—Causes of

[illegible]



The *Cancer* death rate for the Administrative County of Norfolk in 1913 was 1·29, as compared with 1·30 in 1912; 419 deaths being attributed to Cancer in 1913, as against 432 cases in 1912.

Organic Heart Disease accounted for 490 deaths in 1913, as against 482 deaths in 1912.

Diseases of the Respiratory Organs (including Bronchitis and Pneumonia) accounted for 496 deaths in 1913, compared with 494 deaths in 1912. The death rate from this class of disease was 1·5 per 1000 living.

Alcoholism as a cause of death in the Administrative County is not a large factor, only 12 deaths in 1913 being directly attributed to Alcoholism. In addition, there were 24 deaths ascribed to Cirrhosis of the Liver. The majority of these were probably of alcoholic origin.

Puerperal Fever accounted for 3 deaths in 1913.

Other Diseases and accidents of pregnancy and parturition accounted for 21 deaths.

Suicide accounted for 34 deaths, and other forms of *Violent Deaths* numbered 119.

Syphilis is not often stated as a cause of death, but unquestionably some of the recorded deaths were indirectly or directly due to this disease. Apparently, however, this disease is not common in Norfolk.

INFANTILE MORTALITY.

I have written at considerable length on this important matter in previous Annual Reports, which should be referred to for information. The Local Government Board is devoting attention to questions connected with infant welfare, and this year (1914) an Estimate has been laid before Parliament for a grant to be distributed by the Board in aid of the expenditure of Local Authorities and voluntary agencies in respect of institutions or other provision for maternity and child welfare. If voted by Parliament, this grant will aid expenditure primarily concerned with the provision of medical and surgical advice and treatment, as well as in respect of salaries of Health Visitors and other officers engaged for this work.

In previous Annual Reports, as well as in Quarterly Reports to the Public Health Committee, I have outlined the advantages of the services of Health Visitors should the Notification of Births Act be adopted. I have repeatedly drawn attention to the excessive number of infant deaths attributed to premature birth, as indicating the need for measures being taken to secure better ante-natal conditions; attention also to be given to infants for a year or two after birth. The Local Government Board has recently issued (July 30th, 1914) a Memorandum prepared by the Board's Medical Officer which sets forth in outline the matters needing consideration in the preparation of a comprehensive scheme for ante-natal, natal, and post-natal arrangements—the first requisite being the appointment of an adequate staff of Health Visitors—the idea being to secure systematic home visitation for expectant mothers and for young children until the latter are entered on a School register.

The Board think that for the Rural and smaller Urban areas it will be desirable to develop a County organisation—the County work to be intimately related with that of the Local Sanitary Authorities. This suggestion is on the lines I indicated in my Quarterly Report of December, 1911.

The Board have expressed their willingness to afford advice and assistance to Local Authorities in the initiation of schemes.

The Table of Infantile Mortality for 1913 indicates that there were 553 deaths (in the Administrative County) of infants under 1 year of age. The total number of births in the County in 1913 being 6,790, the *infantile mortality rate* works out at 81·29 for 1913, as compared with 83·96 in 1912 and 99·17 in 1911.

In the 12 Urban Districts, 105 deaths of infants under 1 year as compared with 1269 births in 1913 give an infant mortality for these small towns of 82·7. In the 20 Rural Districts, 447 infant deaths and 5521 births give an infantile mortality rate of 80·9. The Urban Districts in the Administrative County of Norfolk are little more than large villages.

As pointed out in former years, the chief causes of infantile mortality now are premature birth, congenital malformations, atrophy, debility, and

marasmus, which group, in 1913, accounted for 262 of the 552 infant deaths. It is a fact demanding serious attention that 47·46 per cent. of the total number of infant deaths should be ascribed to these conditions, the proportion being even higher than in 1912, when 41 per cent. of the infantile mortality was ascribable to the same causes. No arguments could speak more clamantly for the organisation of an effective scheme towards minimising this waste of infant life—especially in view of the low birth rate. Only one death was directly ascribed to Syphilis, but systematic investigation would probably result in a certain number of the deaths at present ascribed to premature birth and marasmus being found to be really ascribable to this disease.

Diarrhœal diseases accounted for 30 infant deaths, of which 12 occurred in the population of 61,801 in the Urban Districts, while 18 occurred among the estimated population of 260,764 in the Rural areas—giving general diarrhœa death rates of 0·194 and 0·069 respectively. These figures indicate that diarrhœa mortality was about three times as high in the small Urban areas as in the Rural areas. The *infantile* diarrhœal mortality per 1000 births gives practically the same results; the *Urban* infantile diarrhœal mortality being ·94 per 1000 births, as against a *Rural* infantile diarrhœal mortality of ·32.

The larger collections of house refuse and the greater difficulties of refuse disposal, and consequent greater excess of flies in the Urban areas, may account for this. The evidence I have accumulated for the past 12 years would justify me in using a stronger word than *may*, but in the absence of detailed information, and in face of the comparatively small number of deaths under review, I leave it at “may.”

Bronchitis and Pneumonia accounted for 98 infant deaths in 1913, the mortality under this heading being much the same as in 1912.

12 infant deaths were attributed to Tuberculosis (meningeal, abdominal, and other).

Among the infective diseases, *Whooping Cough* again proved “*facile princeps*” as a cause of mortality in infancy, 26 deaths being attributed to

this disease, while Measles and Diphtheria each accounted for 1 death. Happily, the Whooping Cough mortality, though so pronounced “per se,” was only half of what it was in 1912, when 53 infant deaths from Whooping Cough were recorded.

The following are extracts from the District Medical Officers of Health reports on the subject of infantile mortality;—

RURAL DISTRICTS.

Aylsham.—“Infant mortality rate, 80·3. Of the 27 deaths 15 were infants under one week old.”

Blofield.—Infant mortality, 76·9. Of the 17 deaths 12 were ascribed to premature birth, debility, etc. “The low infant mortality is probably due to the prevailing custom of rearing infants on breast milk.”

Depwade.—The infant mortality is 71·79. “A large proportion of the 28 deaths are accounted for in the prematurity column.”

Downham.—“The infantile mortality is still high—108·6. 21 of the 39 deaths of children under one year died during the first month of life, chiefly due to premature birth, debility, etc. Among possible ante-natal causes are excessive or unsuitable employment during pregnancy, insanitary homes, poverty, intemperance, legitimacy (*sic*), and obstetrical difficulties; among post-natal, poverty, ignorance, neglect, and improper feeding. There were no deaths from Diarrhœa. Of 26 illegitimate children born, 4 died under one year of age.”

Erpingham.—“The rate of 79·36 is actually the lowest during the last six years, the average being about 90. Ten of the 30 infant deaths in the district were of children under four weeks of age.” [Dr. Linnell informs his Council of the inferences to be made from a high infantile mortality.]

East and West Flegg.—“7 deaths of infants under one year of age as against 261 births. These figures give the remarkably satisfactory low infantile mortality figure of only 26·8.”

Forehoe.—"Infantile mortality 51·7, against an average of 97 for the past five years."

Henstead.—"Infant mortality 57·69."

Loddon and Clavering.—"Infant mortality 98·18."

Mitford and Launditch.—"The infantile mortality (100) is the highest recorded since 1906. Average for 10 years, 1904-1913, is 89·9. 19 of the 39 deaths were of children under one month."

West Lynn.—"Infantile mortality 227 per 1000. Births, 22. Infant deaths, 5; of these, 2 are ascribed to prematurity, 2 to lung affections, and 1 to convulsions."

Freebridge Lynn.—"Infantile mortality 73·5. 10 of the 19 infant deaths were from premature birth, etc."

Marshland.—"Infantile mortality 74·9. 16 of the 23 deaths were cases of premature birth or congenital debility."

St. Faith's.—"Infantile mortality 90. 10 of the 22 deaths ascribed to prematurity and debility, 5 of them dying within the first week."

Smallburgh.—"26 infant deaths, giving an infantile mortality of 95·59. "No less than 15 children died in the first month of their existence, 8 of them from premature birth."

Walsingham.—"The infantile mortality (55) is the lowest recorded. For the second consecutive year there were no deaths from diarrhoeal diseases. 13 of the 20 deaths were of children under one month."

Swaffham.—"There were 14 deaths of infants under one year of age, giving an infant mortality rate of 88 per 1000 births registered. This is a higher rate than we have had in this District for five years past, with the exception of 1911, a year of unusually hot weather. Eight infants died before they were four weeks old, 5 from premature birth and debility and 3 from Bronchitis and Pneumonia, which also caused the death of 2 infants a

few months older, making 5 in all. One child, 11 months old, died of Pulmonary Tuberculosis. The cause of death of 2 infants was registered as 'unknown,' a remarkable fact."

Thetford.—"25 deaths, giving an infant mortality of 110·1. Eight of the 25 infant deaths were babies under a week old."

Wayland.—"Infant mortality, 56·6. Out of 15 infant deaths, 6 were due to premature birth and 2 to congenital malformations, thus accounting for over 50 per cent. of the total."

URBAN DISTRICTS.

Cromer.—"Infantile mortality, 85·7. Four of the 6 deaths due to premature birth."

East Dereham.—"Infantile mortality, 54·68. Five of the 7 deaths due to premature birth and marasmus."

Diss.—"Five infant deaths. Infant mortality, 69·4. Three of the 5 deaths were due to prematurity and 1 to congenital malformations."

Downham.—"42 births, 2 infant deaths (1 premature). Infant mortality rate, 52·6."

Hunstanton.—"33 births, 1 infant death (debility). Infant mortality, 30·3."

Sheringham.—"51 births, 4 infant deaths. Infant mortality rate, 78·43; the lowest since 1909."

Swaffham.—"66 births, 6 infant deaths. Infantile mortality, 90·9. Five of the 6 infant deaths occurred within one week of birth, from prematurity."

North Walsham.—"102 births, 10 infant deaths. Infant mortality, 98·04. Six of the 10 infant deaths due to prematurity and atrophy."

Walsoken.—"Births 95, infant deaths 5. Infantile mortality, 52·62. Two deaths ascribed to atrophy."

Wells-next-the-Sea.—"Births 56, infant deaths 4, infant mortality 70."

MUNICIPAL BOROUGHES.

King's Lynn.—"Births 477, infant deaths 47, infantile mortality 98·5. 21 of the 47 infant deaths ascribed to premature birth, marasmus, and congenital malformations, 7 to diarrhœa, 9 to respiratory diseases; the remaining 10 deaths being ascribed to one or other of seven different causes."

Thetford.—"Births 85, infant deaths 8, infantile mortality 94·11. Six of the 8 infant deaths were ascribed to prematurity, atrophy, etc."

The foregoing extracts from the Vital Statistics of the various districts indicate clearly the importance of endeavouring to tackle the problems of prematurity. There is a bright side to the foregoing figures. They indicate generally that causes of death other than prematurity and atrophy are now comparatively insignificant. This is a tribute to the satisfactory results of sanitation and preventive medicine, which have fairly cleared the field for new operations to be undertaken against ante-natal conditions inimical to infant life.

NOTIFIABLE INFECTIOUS DISEASES.

SCARLET FEVER.—During 1913 there was an increased prevalence of Scarlet Fever, there being in all, in the Administrative County, 621 notifications and 9 deaths.

The Zymotic death rate was 0·02 ; the case rate per 1000 population 1·92, and the case mortality rate 1·44. Only 6·6 per cent. of the cases were removed to hospital.

The Extracts given below from some of the Reports of the District Medical Officers of Health indicate the varying virulence and varying infectivity of this disease. Dry peeling or desquamation, if uncomplicated by discharges from mucous membranes, has little or no infectivity, but moist discharges from the skin or the mucous membranes generally prove infective. Instances corroborative of this observation are given by Dr. Sumpter in the Docking R.D. Many Reports refer to mild cases which have been “missed.” Dr. Wright, M.O.H. Smallburgh R.D., draws attention to the carelessness of many parents when their children have rashes. In Docking R.D. Dr. Sumpter reports two prosecutions for wilful exposure of infected persons. It cannot be too widely known that parents are under penalty to notify cases of those infectious diseases which are notifiable under the Act of 1889. If they call in a Doctor, who is also under compulsion to notify, the Doctor’s notification alone is generally accepted as meeting the requirements of the Act, but if no Doctor is called in, the parent is absolutely responsible, and the law does not recognise ignorance, such as mistaking Scarlet Fever for Nettlerash.

In the R.D. of Walsingham, Dr. Fisher, M.O.H., was again fortunate in having had cottages for isolation purposes placed at his disposal by generous owners. Colonel Groom, at Stiffkey, and Colonel Kennedy, at Wiveton, laid the District and the Sanitary Authority under obligation by their public-spirited action as recorded by Dr. Fisher.

The following are Extracts from the Reports of the District Medical Officers of Health :—

NOTIFIABLE INFECTIOUS DISEASES.

Tabulated from the Reports of District Medical Officers of Health.

Cases Notified and Deaths Registered in connection with

Sanitary Districts.	DIPHTHERIA (including Membranous Croup).							SCARLET FEVER.							ENTERIC FEVER.						
	No. of Cases Notified.	No. of Deaths.	No. of Cases removed to Hospital.	Cases per 1000 population.	Deaths per 1000 population.	Deaths per 100 Cases Notified.	Percentage of Cases removed to Hospital.	No. of Cases Notified.	No. of Deaths.	No. of Cases removed to Hospital.	Cases per 1000 population.	Deaths per 1000 population.	Deaths per 100 Cases Notified.	Percentage of Cases removed to Hospital.	No. of Cases Notified.	No. of Deaths.	No. of Cases removed to Hospital.	Cases per 1000 population.	Deaths per 1000 population.	Deaths per 100 Cases Notified.	Percentage of Cases removed to Hospital.
MUNICIPAL BOROUGHES.																					
1 King's Lynn ..	15	2		0·74	0·09	13·33		89	3	19	4·40	0·14	3·37	21·34	4	1		0·19	0·04	25·00	
2 Thetford ..															1			0·20			
URBAN DISTRICTS.																					
3 Cromer ..	13		6	2·99			46·15	12		11	2·76			91·66	3	1	2	0·69	0·23	33·33	66·66
4 Dereham ..								29			5·04										
5 Downham Market ..								10			4·00				3		1	1·20			33·33
6 Diss ..	22			5·78				3			0·78										
7 Hunstanton New ..								14		11	5·32			78·57							
8 Sheringham ..	1			0·27				25			6·99										
9 Swaffham ..								9			2·78										
10 Walsham, North ..	8			1·85				1			0·23				2			0·46			
11 Walsoken ..	1			0·24				5			1·21				4			0·97			
12 Wells-next-the-Sea } 13 Do. Port }								4			1·56										
TOTAL URBAN DISTRICTS	60	2	6	0·97	0·03	3·33	10·00	201	3	41	3·25	0·04	1·49	20·39	17	2	3	0·27	0·03	11·76	17·64
RURAL DISTRICTS.																					
14 Aylsham ..	6			0·34				72	3		4·13	0·17	4·16		1	1	1	0·05	0·05	100·00	100·00
15 Blofield ..	25			2·26				30			2·72				3			0·27			
16 Depwade ..	20	2		1·00	0·10	10·00		3			0·15				1	2		0·05	0·10	200·00	
17 Docking ..	4			0·23				31	1		1·80	0·05	3·22		6			0·34			
18 Downham ..	1			0·06				17			1·08				18	3	1	1·15	0·19	16·66	5·55
19 Erpingham ..	29	1		1·68	0·05	3·44		39	1		2·26	0·05	2·56		1	(subsequently withdrawn)					
20 Flegg, E. and W. ..	7			0·70				54			5·43										
21 Forehoe ..	5			0·43				11			0·95				1			0·08			
22 Henstead ..	15	3		1·45	0·29	20·00		28			2·72				1			0·09			
23 Loddon and Clavering ..	23			1·83				22	1		1·75	0·07	4·54								
24 West Lynn ..								1			1·06										
25 Freebridge Lynn ..	4			0·33				14			1·15				4	2		0·33	0·16	50·00	
26 Marshland ..	2			0·15				11			0·87				14	1		1·10	0·07	7·14	
27 Mitford and Launditch ..	6	2		0·32	0·10	33·33		7			0·37				3			0·16			
28 St. Faith's ..	11			1·00				9			0·82				1			0·09			
29 Smallburgh ..	6			0·44				6			0·44										
30 Swaffham ..	1			0·13				4			0·52				2			0·26			
31 Thetford ..	2			0·19				6			0·59				4	2		0·39	0·19	50·00	
32 Walsingham ..	4			0·23				33		*	1·91				5			0·28			
33 Wayland ..	2	1		0·13	0·06	50·00		22			1·52										
TOTAL RURAL DISTRICTS	173	9		0·66	0·03	5·20		420	6		1·61	0·02	1·43		64	11	2	0·24	0·04	17·18	3·12
TOTAL WHOLE COUNTY	233	11	6	0·72	0·03	4·72	2·57	621	9	41	1·92	0·02	1·44	6·6	81	13	5	0·25	0·04	16·05	6·17

* Eight cases isolated in two cottages specially utilised for this purpose.



URBAN DISTRICTS.

Cromer.—"12 cases of Scarlet Fever notified; 11 removed to the Isolation Hospital. . . . The next case arose six weeks afterwards, before the former was allowed out. 7 cases occurred in June and July. No other case was notified until the beginning of November. The last case, in December, was the sister of one of the earlier cases, where it was impossible to obtain satisfactory disinfection."

East Dereham.—"Scarlet Fever, once a scourge of childhood, is now comparatively harmless. 29 cases were spread over the year; it was only in March and the summer months that we were clear. The mildness of the attacks in many of these cases is the chief danger of its spreading, for the children are so slightly ill that it is only by the peeling or some serious complication following, that attention is drawn to the outbreak; in fact, the first intimation I had of the autumnal cases was finding two children in different parts of the town suffering from Nephritis. Isolation is very difficult in an ordinary cottage. Disinfectants are supplied, and all persons who work with others removed from the house, and, of course, other children excluded from School. After recovery, the house is disinfected. The public are yearly helping us more and more to check this trouble by not putting obstacles in the way."

Downham Market.—"10 cases of Scarlet Fever, 4 of which occurred in the Workhouse in a family who had just been admitted. Another case was a girl who was sent home from Kelling Sanatorium suffering from a mild attack. Of the remaining 5 cases, 2 occurred in one house. In all the cases, although there were other children living in the houses, it was possible to isolate and so prevent any further spread."

Diss.—"2 notifications. Houses were disinfected after recovery. Disinfectants were also supplied free of charge to those who cared to avail themselves of the opportunity of taking extra precaution. Further preventive measures were taken in disinfecting 9 rooms at the Council Schools and scrubbing all woodwork with disinfectant. The w.c's., gullies, and drains were also flushed with disinfectant."

Hunstanton, New.—"14 notifications. 11 cases removed to Isolation Hospital. I think that the infection in 10 of these cases was either contracted outside the District or from excursionists."

Sheringham.—"Of 9 cases occurring during the first quarter, 4 were in one family, 2 other cases were traced as being due to personal contact with previous cases, and the whole of the 9 cases were probably due to a child with an infectious ear discharge returning to School. This child was discovered by me in School, and exclusion rapidly brought the epidemic to an end. There were 5 cases in the middle of the year which were almost certainly due to a relighting of the infection in the throat of a child with enlarged tonsils who had had Scarlet Fever. Discovered in School after a good deal of trouble, exclusion of this scholar stopped the notifications."

Walsoken.—"5 notifications—mild in character, and gave little cause for anxiety."

Wells.—"4 notifications."

King's Lynn.—"89 notifications with 3 deaths. Mostly of a mild type, but latterly there seems to have been more serious involvement of the pharynx and middle ear. In the last half of the year it was found to be necessary to open the Isolation Hospital for cases which could not be properly isolated at home, or because of crowded yards or from other causes, such as expected parturition. In the third quarter 5 such cases were admitted, and in the fourth quarter 14. The Sanitary Inspector visited the houses wherein the notified cases were situated, and, after the usual time for isolation, disinfected the rooms and took the bedding, etc., to the steam disinfectors."

RURAL DISTRICTS.

Aylsham.—"72 cases notified. For the most part the type of disease was mild, but three deaths were registered. The disease was epidemic in Aylsham at the end of 1912, and it continued to be so for the first three months of 1913. No fresh cases occurred during the summer, but in the autumn there was a recrudescence which lasted till the end of the year."

No death occurred among the 41 cases notified in Aylsham, and it was no doubt largely owing to infection spread by unrecognised mild cases that the epidemic was so prolonged. In Marsham there were 16 cases in the early summer. The disease in this village was of a more severe type than at Aylsham, and one death occurred. For the rest, the cases were sporadic."

Blofield.—"Thirty notifications were received. In Thorpe there were 10 cases, 7 being notified from the same house. One of the boys of this family contracted the disease in Norwich and was 'isolated' in the cottage with his six brothers and sisters. As might be expected, the whole family went down with fever, although, owing to the great care taken, it was 26 days before the first child fell ill. Had there been an isolation hospital to which the first case could have been sent, there might have been but 1 case instead of 7, the father of the family would have been able to continue at his work, and anxiety as to the further spread of the disease might have been saved."

Docking.—"31 notifications. When the first case was notified enquiries showed that there had been several previous cases. Two were attending school; on advice, the parents called in their own medical man; usual precautions were taken. Two parents were summoned for their children being wilfully exposed without proper precautions and were fined. A. case: In August a case was reported as being in the fourth week of the disease. On visiting the house (a shop) I found the boy (patient) had been daily taking papers round. He was isolated, the shop closed for a few days, and disinfection carried out as fully as possible. No other case was traced to this source of infection. B. case: One case was isolated for six weeks and never peeled. After being discharged from quarantine he developed an ear discharge, went out of the district and gave Scarlet Fever to two children in another.

"Burnham Thorpe, three cases. C. case: On visiting, one case was found not properly isolated; the parents were warned, and then carried out isolation as well as the accommodation in the cottage would allow. One other case had previously been infected by this, but no more occurred

afterwards. The cases A, B, and C are interesting. A and C, though peeling freely, with none or little isolation and disinfection, only infected one other case. B, after six weeks' isolation and no peeling, developed an ear discharge which proved to be contagious.

“Houghton. Several cases were reported as suspicious of Scarlet Fever. They were visited on two occasions; one case had rather a suspicious desquamation and was temporarily excluded, the other cases were not suspicious. No cases were notified.

Downham.—“There were 17 cases of Scarlet Fever, mostly of a mild type, and calling for no comment. At Marham three cases occurred in one family. Although there were other children in the houses of the other cases they did not contract the disease. The case at Wormegay, however, at the end of the year, infected several other children. The primary case was so slight that the boy, until medically examined and notified, was not confined to the house.”

Erpingham.—“39 notifications. Parishes chiefly affected, Hempstead, Holt, Briston, and Cley. At Briston infection was traced to a visiting family in August. At Cley proceedings for non-notification were taken against a parent and a conviction secured at Holt Petty Sessions.”

East and West Flegg.—“54 notifications.”

Forehoe.—“11 notifications. All cases carefully isolated, and houses, drainage, water supply, and surroundings inspected. The houses are afterwards disinfected.”

Henstead.—“28 cases were notified occurring in nine parishes; 9 cases notified in Rockland St. Mary among the school children, in this case the school was closed; 2 cases in one house in Bramerton also connected with the Rockland cases. One in Surlingham, contracted outside the district, the patient coming home ill from school at Eastbourne. Two in Keswick, probably due to defective drainage. These drains were thoroughly overhauled, some of the old ones being taken up and new relaid. Two in Cringleford due to stench arising from uncovered cesspool. Six in Fram-

ingham Pigot, 3 in Stoke Holy Cross, and 2 in Poringland, all more or less connected with each other, as all attended the same school. One at Braconash; the infection in this case supposed to be due to a sick cat which the child was fond of nursing."

Loddon and Clavering.—"There were 22 cases reported during the year, chiefly during April and May. They were scattered over the District, viz.—Kirby Cane 4, Raveningham 2, Topcroft 4, Hellington 1, Ellingham 2, Thurton 2, Gillingham 2, Bedingham 2, Woodton 1, Chedgrave 2. The 7 cases in Topcroft, Bedingham, and Woodton were no doubt spread from the first case in Topcroft; the others were isolated cases where it was impossible to trace any source of infection."

West Lynn.—"One case in October. House disinfected with sulphurous acid gas."

Freebridge Lynn.—"14 cases were notified. Grimstone village, 5; the first case was a visitor from Lynn, and the other 4 were in the immediate neighbourhood of this case, and undoubtedly contracted it from the above case. Castleacre village, 3 cases; source of infection untraceable. East Winch, 2 cases. Gayton, West Bilney, Setchey, and Gaywood, 1 case each; source of infection in above cases untraceable."

Marshland.—"11 cases were notified, 4 in Terrington, 6 in Walpole, and 1 in Emneth. They were all of a mild type."

St. Faith's.—"9 cases notified."

Smallburgh.—"6 cases notified. 3 occurred at Hickling. This parish is singularly troubled with Scarlet Fever since the disease was brought to the parish by two children from London. During the last five years, out of a total of 96 cases notified in the entire District of 41 parishes, no less than 44 notifications came from Hickling. This last outbreak could be traced to other suspicious cases of children said to have had Nettlerash, but who afterwards peeled. Many parents are not nearly careful enough when their children have rashes, and, unless they are very ill, do not call in medical

advice. A mild case returning to School after two or three days keeps the infection going. One case at Felmingham was contracted from School at Colby, where a child died of the disease."

Swaffham.—"4 cases occurred in one family at Hilborough during September. The origin of the outbreak was not traced. The infected children were isolated in an empty house with a person in charge of them. No further cases resulted."

Walsingham.—"33 cases in 13 parishes. 15 of these cases occurred in Stiffkey during the months of October and November. It was introduced by a child from London, who was for some time in the village in a peeling state before being discovered. In consequence of the impossibility to isolate some of the cases, two cottages, kindly placed at the disposal of the Rural District Council by Colonel Groom, were converted into one, and five children were placed under the charge of a nurse and attendant from November 15th, 1913, to January 7th, 1914. The expenditure incurred in thus treating five patients for 66 days worked out as under:—Nursing, £22 11s. 1d.; maintenance, £20 16s. 2d.; assistance, £5 11s. 3d.; labour, £1 8s. 4d.; disinfectants, £3 7s. 6d.; cartage, £2; furniture, £7 14s. 8½d.; coals, £1 12s. 8d.; total, £65 1s. 8½d. The result was satisfactory in that no further cases occurred after the isolation of these patients. In Wiveton, also, a cottage was placed at the disposal of the Council by Colonel Kennedy, and a nurse placed in charge of three patients for 44 days. The expenditure incurred was £38 15s."

Wayland.—"22 cases, nearly all mild; no deaths. Attleborough was the parish chiefly affected; 7 cases in February and 10 during the last three months of the year. Isolation is always a difficult matter where the accommodation in a cottage is very limited; consequently, it is not surprising to find several members of a family affected. There is no Isolation Hospital in the District. The problem of isolation of persons suffering from infectious diseases in Rural Districts is not easy to solve; a hospital is impracticable, and proper isolation in a working-class cottage impossible. If a virulent type of the disease appeared, I fear there would be some disastrous results.

I have no suggestion to offer other than the renting of a cottage by your Council, ready to be used for isolating the first cases notified."

DIPHTHERIA.

233 cases were notified in the County, giving a case incidence rate of 0·72 per 1000 population. There were only 11 deaths, giving a case mortality rate of only 4·72, and a Zymotic death rate of 0·03. Only 2·57 per cent. of the notified cases were removed to hospital.

Extracts from District Reports :—

URBAN DISTRICTS.

Cromer.—"13 cases of Diphtheria were notified, 2 cases occurring early in May, the rest in the last quarter of the year; the latter outbreak arising mostly, at first, in the children of one class in the School, the first case having returned from London shortly before he was notified. With the County School Medical Officer, we visited the class and excluded all those who were suspicious cases until they were proved free from Diphtheria bacilli by bacteriological tests; the rest of the class were excluded for four days. Two cases occurring in adults were isolated at home, six cases in the hospital, and the rest being isolated at home with no ill effect."

Sheringham.—"2 notifications; one subsequently withdrawn, the other imported."

North Walsham.—"8 notifications, 4 of which were among School children. All cases were kept isolated until there was no evidence of the disease after bacteriological examination of throat swabs."

King's Lynn M.B.—"15 notifications with 2 deaths, or less than half of those reported in the previous year."

RURAL DISTRICTS.

Aylsham.—"Six cases of Diphtheria were notified during the year, but this cannot be said to comprise the total number which came to my knowledge, as in some instances the notification of a single case led to the discovery of many other children attending the same School who were

suffering from the disease. There were no fatal cases, and generally the type of disease was very mild. The outbreak at Hindolveston, at the end of 1912, finished in January of 1913 with only one fresh case. Four cases were notified from Hevingham in October and November, and there was a single case at Aylsham. 26 swabs were examined; 10 reported positive."

Blofield.—"This disease was prevalent in Reedham during the latter six months of the year. Few of the 15 patients notified were seriously ill. Many of the cases were nasal, and others were so slight that their diagnosis would have been impossible without the aid of bacteriological examinations. In dealing with an epidemic of this character, the only hope of controlling it was in the free use of swabs for the diagnosis of suspicious cases and the prevention of the return of children to School while still in an infectious state. The measures taken may be considered to have been successful when it can be stated that, with the exception of a few days, the School remained open and there was not a single fatal case."

Depwade.—"20 notifications. The serious outbreak at Moulton accounts for 13 of the cases. The spread of the disease was traced back to one 'carrier' case, and emphasized the danger of such cases and the great value of systematic bacteriological examination of suspects that has been instituted in this District."

Docking.—"No epidemic; 4 cases in all. 3 cases at Heacham; one unconfirmed by bacteriological examination, one discovered by School Medical Inspector, and on examining the absentees another case was detected."

Downham.—"Only one case was notified. The diagnosis of Diphtheria was confirmed by a throat 'swab.' The case was isolated as far as possible and no further cases occurred in the house. There is no doubt that the infection was contracted from a child who was staying in the house. This child came from London, where he had had a bad throat and, when he arrived, a nasal discharge. On his return shortly afterwards, I learned that his sister had been sent to hospital suffering from Diphtheria."

Erpingham.—29 notifications. 15 of these at Holt and 8 at Roughton. These were the subject of a Special Report by the District M.O.H., from which the following extracts are given :—

“The 8 cases occurring in Holt up to January 31st, 1913, were part of an epidemic of 16 cases occurring in or spread from that parish, which commenced on 20th December, 1912, and which has been referred to in my Annual Report for 1912. The first case was notified on December 20th, just as the Schools broke up for the Christmas holidays and as the School Staff dispersed. During the week I received 10 further notifications, nearly all in girls between the ages of 8 and 10 years. I visited the cases as they occurred, accompanied by the Sanitary Inspector, but was greatly hampered by the absence of the School Staff in obtaining the information necessary to trace the source of infection. The evidence I obtained eventually pointed to two girls as possible sources of infection. In the house of the first girl there were 2 notified cases of Diphtheria, and as she had been previously absent from School, it seemed probable that she had had Diphtheria in a mild form, which she had communicated to her brother and sister and others on her return to School. The evidence from dates did not quite fit in, however, and, bacteriologically, this girl was apparently free from infection at the time I examined her.

“The second girl had been absent from School for four days previous to December 20th, the date of the first notified case, had returned to School for one half-day, when she fainted in School, and after that, been absent until the end of the term. The first notified case occurred three days after the day upon which this girl attended once at School; the second batch of notifications were received four days after the first. A clinical and bacteriological examination verified the suspicion that this girl had had Diphtheria, returned to School, and infected the first batch of notifications, who, later, infected the second batch of notifications.

“At the commencement of term the School were assembled at 10.30 on January 6th, when Dr. Nash, County Medical Officer of Health and School Medical Officer, and myself visited the School and swabbed all

suspicious cases. Two cases of nasal discharge found to be infected with the Diphtheria bacillus, and three cases infected with the Pseudo-Diphtheria bacillus, were excluded, and the Schools allowed to re-open. The outbreak was effectually checked.

“The cottages abutting on the back yards of Holt are, generally speaking, old and small, poorly ventilated, and damp, either for want of a damp-proof course and floor, or for want of guttering.

“Unpaved yards mean foul soil and damp houses, which mean excessive moulds and bacteria in the air, lowered resistance in the children, and a suitable soil for disease when the seed is introduced.

“The large, fixed, insanitary dustbins which were common in Holt a few years ago have, owing to the efforts of the Council, been completely done away with and replaced by modern sanitary dustbins which are regularly emptied.

“The water supply of Holt is good and abundant. It is derived from a deep well and laid on by means of standpipes to the houses of the back yards of Holt. The town is sewered practically throughout, and has a modern water-carriage system of sewerage.

“The cases of Diphtheria were, generally speaking, mild in character; one death occurred. A free supply of antitoxin and bacteriological examinations at the expense of the Council were provided for. From 1st February to 26th April, 1913, 9 cases of Diphtheria were notified in the Erpingham Rural District, 7 in Roughton and 2 in Northrepps. The first notified case occurred in Roughton on February 6th. On February 10th the School Medical Officer visited the School, owing to the prevalence of sore throats among the scholars reported to him by the Schoolmaster. He discovered 2 cases of Nasal Diphtheria and 4 children who had the Pseudo-Diphtheria bacillus in the throat. One of the cases of Nasal Diphtheria occurred in a family in extreme poverty, inhabiting an extremely insanitary cottage, which was condemned as unfit for habitation some time ago, and which will be closed as soon as the tenants can be got rid of. Later on, 2 further cases occurred in the same family, which was removed to the Workhouse Infirmary

and the house disinfected after the cases were free from infection. It is probable that this family spread the disease to 7 of the 9 cases that occurred. The other cases occurred in adults who had children attending School, and were probably spread from the family above mentioned via unrecognised cases in children. The cases were all mild, and no death occurred. Since April 26th there has been one further notification from Roughton, the child of an earlier case. Antitoxin was supplied and bacteriological examinations provided.

“As regards special circumstances affecting the villages of Northrepps and Roughton; the three wells in Northrepps have all been shewn to be polluted. I think the time has come for the Council to take the matter in hand and provide a proper water supply of deep well water by boring, or to arrange for an extension of the water main of the Cromer Water Company, about one mile distant. Roughton is a straggling country village, and contains several cottages and dwellings which are unfit for habitation. The water supply is from shallow wells; recently there has been a shortage of water owing to the collapse of one of the wells. It is just possible that the necessary ensuing economy of water may have had a bearing on the prevalence of Diphtheria in the village. I should like to see this village supplied with a deep well water laid on to convenient points, or by means of an extension of the Cromer Water Company's main. Notices have been served on the owners of property in this village to provide a proper water supply. The villages of Northrepps and Roughton have almost entirely pail closets.”

Henstead.—“15 cases were notified, occurring in 6 parishes, with a mortality of 3. 3 occurred in the parish of Trowse Newton, of which 2 were probably caught at School and 1 from Norwich; 2 cases at Caistor St. Edmund's; and 2 in Mulbarton in one house, due to insanitary drainage and defective cesspool within a few feet of house; these drains and cesspool were taken out and totally new drainage provided. 6 occurred in Hethersett among School children; 2 cases no doubt arose from drain gas entering house through untrapped drains in house; these drains were taken up and fresh laid in the external air. 1 in Saxlingham Nethergate, found out by the

School Medical Officer while making medical inspection of the School children. 1 in Shotesham, due to defective drainage; in this case totally new drains were laid."

Loddon and Clavering.—"There were 23 cases. There was only one case notified until September 30th, then there was an outbreak of very mild cases, chiefly in children attending Raveningham and Yelverton Schools. The majority of these cases presented practically no typical signs, and were only diagnosed by swabs being taken of their throats and the resulting culture examined microscopically. Many of these cases were discovered by the School Medical Officer. So mild were most of the cases that there was much grumbling at the Schools being closed; but had one fatal case occurred, Dr. Nash and myself would have immediately been blamed. On inspecting the children at Raveningham School at the end of October, and taking swabs of those who had either slight reddening of the tonsils or discharge from the nose, we found 5 more children with the Diphtheria bacillus present. No child was allowed back to School until a negative swab had been obtained. Except for 3 cases in one family at Haddiscoe Station, there were no further cases."

Freebridge Lynn.—"4 cases of a mild type were notified; 2 in the same house at Bawsey, 2 in the same house at Leziat."

Marshland.—"Two cases were notified in Walpole, one of which proved fatal."

St. Faith's.—"11 cases notified in the parishes of Sprowston and St. Faith's."

Smallburgh.—"Three of the six cases were, I believe, contracted outside the District. One case, a servant at Tunstead, was employed at a farmhouse where the drains were bad and the water contaminated owing to sewage leaking into the well."

Swaffham.—"There was one notification. This case occurred at Narford, in January, in the same house where in December of the previous year a child had developed the disease. I also received a notification in

August that a person was suffering from 'symptoms of Diphtheria coming on after Influenza.' I visited the house on the same day and found the patient dead. I had some correspondence on the matter and was informed that the communication was not intended as a notification of Diphtheria. There has not been much Diphtheria in the District for some years past."

Walsingham.—"Four cases in three parishes. This is the lowest number of cases of this disease that we have had to deal with during the past 10 years."

Wayland.—"There were two cases of Diphtheria notified: one at Scoulton, which proved fatal very rapidly. I advised closure of the School for disinfection, as the child had been in the School the day before the disease was recognised. The other case was at Griston and was discovered through the admirable system of School notification of suspected infectious diseases. In this instance the Teacher had notified the absence from School of several children suffering from sore throats. I visited the School and examined several of the children at their homes; and later, again visited the School with the School Medical Officer, taking 'swabs' from the throats of several children; one of these proved 'positive.' I have no doubt this was an epidemic of Diphtheria of a mild type."

ENTERIC OR TYPHOID FEVER.

RURAL DISTRICTS.

The Eastern portion of the County was singularly free of Typhoid Fever during 1913, there being no cases notified in 4 Districts (Smallburgh, East and West Flegg, Loddon and Clavering, and Wayland). Erpingham is to be added to this list, as the 1 notification of Enteric Fever was subsequently withdrawn. The Districts of Depwade, St. Faith's, Forehoe, and Henstead had only 1 notification each, and Thetford and Swaffham Rural Districts only 2 notifications each. Mitford and Launditch in the centre of the County had 3 isolated cases in as many parishes.

In the North-West of the County, Walsingham R.D. had 5 cases in 4 parishes, and Docketing R.D. 6 cases in 4 parishes (apparently 4 of the 6 cases originated in 1 parish—Ringstead). The case at Burnham Sutton had

eaten shellfish, as also had 3 of the 5 cases in the Walsingham R.D., the other 2 cases being strongly suspected as having received infection from a "carrier."

The Western Districts of Marshland and Downham suffered to the extent of 14 cases and 18 cases respectively, while Freebridge Lynn had 4 cases. Details are given in the Extracts from the Reports of the District Medical Officers of Health quoted below.

Where no proper precautions as to hygienic nursing, etc., are taken, Enteric Fever is undoubtedly an infectious disease and liable to affect other members of a family as in the Terrington cases. The "carrier," especially when only periodically infective, may not be detected until more than one case can be traced to his unconscious influence.

Extracts from District Reports :—

URBAN DISTRICTS.

Cromer.—"Three cases of Enteric Fever were notified. The first was removed to the Isolation Hospital; no cause was ascertained, and the Widal reaction was negative. The next case was too ill to be removed as far as the Isolation Hospital, but was admitted into the Cottage Hospital, where she died next day after a short illness; no cause ascertained; Widal test negative; without a post-mortem. The other case occurred in a visitor who had been only ten days in Cromer, and had eaten watercress seventeen days before notification."

Downham Market.—"There were three cases of Enteric Fever. One of these occurred in the Workhouse, the patient having been brought from the adjoining District; this case was fatal. The two cases that occurred in the town lived in adjoining streets and were notified during the same week. The sanitary surroundings in both cases were not satisfactory; near one there was a foul ashpit and leaking drain, and near the other a heap of decaying rubbish. At the time there was a perfect pest of flies, especially noticeable in one of the houses. It is well known that flies play an important part in the spread of disease. Accumulations of fermenting

horse manure form the chief breeding place of the house fly, but these insects will also breed in other excrementitious substances and in decaying and fermenting organic matter of various kinds, such as is often present in ashpits and larger deposits of house refuse. Flies can travel a considerable distance, and carry the germs of disease on the exterior of their legs and wings and also in the intestine, and therefore may deposit such germs in any food with which they may come in contact. It is obvious that the best way to lessen the dangers connected with flies is to remove the material in which they breed."

North Walsham.—"Two notifications. These cases occurred in a house in an insanitary and unsatisfactory condition, and having its water supply from an old well."

Walsoken.—"Four notifications; three in one house; mild character."

Thetford M.B.—"One notification; case imported, but owing to prompt and stringent measures being taken no further case occurred."

King's Lynn M.B.—"Four notifications, one of which was admitted into the West Norfolk Hospital from outside the Borough. Of the other three, one died. I could get no evidence as regards the origin of any of the cases."

RURAL DISTRICTS.

Aylsham.—"One notification, case removed to Aylsham Infirmary; proved fatal."

Blofield.—"Two cases notified; both in Acle. One 'imported,' the other, a fisherman, also doubtful if of local origin."

Docking.—"Six cases. Ringstead, three cases; could not be traced. Brancaster, one case traced to a contaminated well at Ringstead. Burnham Deepdale, one case traced to a contaminated well. Burnham Sutton, one

case could not be traced definitely. Well water was not satisfactory, but on being cleaned out gave a good analysis. This was the only case that had eaten shellfish within a possible time of inception. One case which occurred out of the District was traced to a contaminated well at Ringstead, the same as in the Brancaster case."

Erpingham.—"One notification, subsequently withdrawn."

Henstead.—"One notification at Poringland, well water grossly polluted."

Freebridge Lynn.—"Four cases notified—two in Harpley, one in Ashwicken, 1 West Winch—two imported; in the other two drinking of impure water was deemed to be the cause; two of the four cases died."

Marshland.—"Fourteen cases notified; seven in Terrington, six in West Walton, and one in Upwell. One case proved fatal. The Terrington cases occurred in two families living in adjoining houses in Terrington Marsh, and were not recognised as such at first and consequently no precautions taken. Of the six cases at West Walton, five occurred in two families living near each other and in close proximity to fruit pickers' quarters. There is a great probability of some of these fruit pickers being carriers of infection."

Mitford and Launditch.—"Three notifications; one case in each of three parishes."

Swaffham.—"The two cases were imported. Two children, visitors, both developed the disease the day after their arrival at Saham Toney. I visited the house, and every precaution was taken; a nurse was in attendance, and both children recovered. No other case resulted. I endeavoured to trace the source of infection, but without success."

Walsingham.—"Five cases in four parishes. In two of these cases there was strong suspicion that their origin was due to a "carrier," in the others no cause could be found beyond the possibility of infection by shell-

fish. In all the cases the water supply was investigated, both chemically and bacteriologically. The Widal test is now applied in every case."

Downham.—"There were 18 cases of Enteric Fever notified. At Runcton Holme five cases occurred in the school house. There is little doubt that a polluted well caused this outbreak. A chemical and bacteriological examination demonstrated the presence of *Bacillus Coli* (in 10 c.c.) and 'pollution with sewage or animal excreta.' The school was closed and the drains were exposed and found to be in a bad condition. These have been thoroughly overhauled and relaid and the well closed.

"The first of the two cases at Welney was contracted outside the District, the patient coming home ill to be nursed. There were six cases at Southery. Two of these, in one house, drank the river water. Another case contracted the disease from a patient she was helping to nurse. This case was sent to Lynn Hospital. In one case a Widal test taken was negative."

PUERPERAL FEVER.

Eight cases were notified in the Administrative County in 1913, with three deaths. Two cases occurred in the Erpingham R.D. and one case in each of the following Districts:—King's Lynn M.B., Marshland R.D., Swaffham R.D., Flegg R.D., Freebridge Lynn R.D., and Loddon and Clavering R.D.

ERYSIPELAS.

Ninety-three cases notified during 1913; 24 in the 12 Urban Districts, and 69 in the 20 Rural Districts. The only detail mentioned is that one case in the Henstead District was attributed to a wasp sting.

POLIOMYELITIS.

One case notified in the Flegg District. No details given.

SMALL POX.

One case was notified in the Henstead R.D. in July. Dr. Burton writes:—"One case occurred in the Parish of Hethersett during the

month of July, the patient being a young man age 24, who had recently returned from Canada; after landing at Liverpool he went direct to London, where he stayed one night and then returned to his home at Hethersett; 14 days after reaching home he developed Small Pox. Every precaution was taken to thoroughly isolate the patient; residents in the near neighbourhood and workmen on the farm were vaccinated or re-vaccinated, and all members of the household. At the termination of the illness every room was disinfected and the bedding and furniture in the room burnt; the rooms were afterwards cleansed. Fortunately no other case occurred."

The question of Small Pox is likely to loom larger again before long. The present great European War, with its movements of troops, and its pillage and destruction, involving the entry into this country of many foreign refugees, increases the dangers of the introduction of this disease into England. Unfortunately the younger generation of this country is not so well vaccinated as ten years ago. Unless the people arise to a sense of the danger and secure the vaccination of their younger children, and the re-vaccination of those of maturer age, there is undoubtedly risk of Small Pox invading and spreading in England. Sanitary authorities should seriously consider their arrangements for dealing promptly with a *first* case, and should systematically encourage vaccination and re-vaccination.

NON-NOTIFIABLE INFECTIOUS DISEASES.

Reference should be made to Part I. of my Report (Report of the S.M.O.), pp. 27-29, as to the general prevalence of these diseases among School children in the Administrative County of Norfolk, involving the temporary closure of 63 Schools for Measles, 30 for Whooping Cough, 31 for Influenzal Colds, 8 for Mumps, and 3 for Chicken Pox in the course of the year, out of a total of about 500 Schools.

MEASLES.

Fourteen deaths were ascribed to Measles in the Administrative County in the course of the year. These deaths occurred in 10 Sanitary Areas, 2 deaths occurring in each of the following Rural Districts :— Blofield, Depwade, Erpingham, St. Faith's, and Thetford, and 1 death in Walsoken Urban, Downham Rural, East and West Flegg, and Marshland Rural.

WHOOPING COUGH.—As regards Whooping Cough, 3 deaths occurred in Diss, and 1 death in King's Lynn, Downham Market, and New Hunstanton among the Urban Areas.

In the Rural Districts, 8 deaths were registered in Erpingham; 6 in Mitford and Launditch and in Thetford; 4 in Depwade and in East and West Flegg; 3 in Blofield and in Smallburgh; 2 in Walsingham and in Wayland; and 1 in Aylsham, Downham, and Forehoe.

TUBERCULOSIS.

Notification.—The order of the L.G.B. extending compulsory notification to cases of all forms of tuberculosis came into force on February 1st, 1913, the three previous orders being consolidated and modified in directions shown desirable by experience.

The Medical Officer of the Board has summarised these modifications as follows :—

“ 1. The practitioner is not required to notify if he has reasonable ground for believing that the tuberculous patient when first seen by him has already been notified to the Medical Officer of Health of the district in which the patient resides at the time when seen.

“ 2. Notifications are to be sent to the Medical Officer of Health of the district in which the patient is residing, instead of the Medical Officer of Health of the district in which the patient is examined by the doctor.

“ 3. School Medical Inspectors are now required to notify new cases weekly, and send their notifications to the Medical Officers of Health of the districts in which the notified children reside.

“ 4. The Medical Officers of poor law institutions and of approved sanatoria are now required to notify all patients admitted to the Medical Officers of Health of the districts from which the patients have been admitted, and all patients discharged to the Medical Officers of Health of the districts to which they are discharged.

“ 5. The diagnosis leading to notification must be based upon evidence other than that derived solely from tuberculin tests applied to the patient.

“ 6. The confidential character of notifications is more strongly emphasised than in the previous regulations.

“ 7. The duty of transmitting to the County Medical Officer of Health weekly lists of cases notified is now imposed not merely on the Medical Officers of Health of the Metropolitan boroughs, but also on the Medical Officers of Health of all urban and rural districts.

A.

TUBERCULOSIS.—Action taken after Notification.

Abstracted from Annual Reports of District Medical Officers of Health.

	Inspection of Home and Workshop.	Examination for Contacts.	Disinfection.	Distribution of Advice Leaflets.	Examination of Sputum.	Shelters Provided.	No. of Notifications (all forms).	No. of Deaths (all forms.)
URBAN DISTRICTS.								
Cromer	Yes	When necessary	Yes	Yes	Yes (number not recorded)		5	4
East Dereham ..	(No	information given)					1	5
Downham Market ..	Home		Yes (after death)				8	4
Diss	(No	information given)					2	3
Sheringham	Home	(Not stated)	Yes	Yes	Yes		13	5
Swaffham	(No	information given)					2	1
Thetford M.B. ..	Home				Yes		4	2
King's Lynn M.B. ..	(No	information given)					64	30
New Hunstanton ..			1 room disinfected	Yes	Not at expense of S.A.		4	2
North Walsham ..	Occasionally	No	Occasionally	Yes		None	11	9
Walsoken	(No	information given)					6	3
Wells-next-the-Sea ..	(No	information given)					8	3
RURAL DISTRICTS.								
Aylsham	Home			Personal advice	Yes (no specimens sent)	Yes (1)	27 (1 amended)	8
Blofield	Home		Yes (after death)		Yes	Yes (1)	17	11
Depwade	Yes	Yes	Yes	Yes	Yes	Yes	27	17
Docking	Home	No	After death or moving	Yes	Yes (6 specms.)	Yes (2)	23	9
Downham	Home	(Not stated)	(Not stated)	(Not stated)	Yes (2)		24	15
Erpingham	Home		Yes	Yes	Yes		25	24 (17 net)
East and West Flegg ..	(No	information given in the Annual Report)						1
Forehoe			Yes			Yes	14	9
Henstead	Home		Yes				10	5
Loddon and Clavering ..	Yes	No	Yes	Yes	Yes (6)	Yes	34 (10 amended)	13
West Lynn	(No	information given)					2	1
Freebridge Lynn ..	Yes	Yes	Yes	Yes	No	No	19	10
Marshland	(No	information given)					15	12
Mitford and Launditch..	(No	information given)					24	18
St. Faith's	Yes					No	18	11
Smallburgh	Yes	No	If desired	Yes	Yes (number not recorded)	If required	36	17
Swaffham	Yes		Yes	Yes			7	9
Thetford	Yes	If necessary	Yes	Yes	Yes (? No.)		16	8
Walsingham	Yes		Yes	Yes	Yes		28	17
Wayland	Yes		Yes				21	14

[A Tabular Record was sent to each Urban District M.O.H. to fill in. These were returned only from Cromer, New Hunstanton, Walsoken, and North Walsham. They were also sent to each Rural District M.O.H. Only four returned them filled in. Sufficient information was obtainable from a few of the Annual Reports to be included in this Statement.]



TUBERCULOSIS, 1913.

Sanitary Districts.	PULMONARY.				OTHER FORMS.				Tuberculosis Death Rate (all forms)
	No. of Cases Notified	No. of Deaths	No. of Cases Notified per 1000 population	No. of Deaths per 1000 population	No. of Cases Notified	No. of Deaths	No. of Cases Notified per 1000 population	No. of Deaths per 1000 population	
MUNICIPAL BOROUGHES.									
1 King's Lynn ..	44	24	2·17	1·18	20	6	0·98	0·29	1·48
2 Thetford ..		2		0·41	4		0·83		0·41
URBAN DISTRICTS.									
3 Cromer ..	5	3	1·15	0·69		1		0·23	0·92
4 Dereham ..	1	4	0·17	0·69		1		0·17	0·87
5 Downham Market ..	8	3	3·20	1·20					1·20
6 Diss ..	1	2	0·26	0·52	1	1	0·26	0·26	0·78
7 Hunstanton New ..	3	2	1·14	0·76	1		0·39		0·76
8 Sheringham ..	11	3	3·07	0·83	2	2	0·55	0·55	1·39
9 Swaffham ..	2	1	0·61	0·30					0·30
10 Walsham, North ..	6	4	1·39	0·92	5	5	1·16	1·16	2·08
11 Walsoken ..	4	2	0·97	0·48	2	4	0·48	0·96	0·72
12 Wells-next-the-Sea } 13 Do. Port }	7	2	2·73	0·78	1	1	0·39	0·39	1·17
TOTAL URBAN DISTRICTS ..	92	52	1·48	0·84	36	21	0·56	0·33	1·18
RURAL DISTRICTS.									
14 Aylsham ..	18	6	1·03	0·34	8	2	0·45	0·11	0·45
15 Blofield ..	12	9	1·08	0·81	5	2	0·45	0·18	0·99
16 Depwade ..	19	15	0·95	0·75	8	2	0·40	0·10	0·85
17 Docking ..	18	9	1·04	0·52	5		0·28		0·52
18 Downham ..	17	12	1·08	0·76	7	3	0·44	0·19	0·95
19 Erpingham ..	17	11	0·98	0·63	8	6	0·46	0·34	0·98
20 Flegg, E. and W. ..		1		0·10					0·10
21 Forehoe ..	10	7	0·86	0·60	4	2	0·34	0·17	0·78
22 Henstead ..	8	4	0·77	0·38	2	1	0·19	0·09	0·48
23 Loddon and Clavering ..	21	8	1·67	0·63	13	5	1·03	0·39	1·03
24 West Lynn ..	2		2·13			1		1·06	1·06
25 Freebridge Lynn ..	12	6	0·99	0·49	7	4	0·57	0·33	0·82
26 Marshland ..	13	7	1·03	0·55	2	5	0·15	0·39	0·95
27 Mitford and Launditch ..	17	12	0·90	0·64	7	6	0·37	0·32	0·96
28 St. Faith's ..	15	6	1·37	0·55	3	5	0·27	0·45	1·00
29 Smallburgh ..	29	15	2·16	1·11	7	2	0·52	0·14	1·26
30 Swaffham ..	5	8	0·66	1·05	2	1	0·26	0·13	1·18
31 Thetford ..	10	7	0·99	0·69	6	1	0·59	0·09	0·79
32 Walsingham ..	21	14	1·21	0·81	7	3	0·40	0·17	0·98
33 Wayland ..	18	12	1·24	0·83	3	2	0·20	0·13	0·97
TOTAL RURAL DISTRICTS ..	282	169	1·08	0·64	104	53	0·39	0·20	0·85
TOTAL WHOLE COUNTY ..	374	221	1·15	0·68	139	74	0·43	0·22	0·91

“ 8. The notification form (Schedule A) has been extended to include the usual place of residence and the occupation of the patient.

“ 9. Fees for notification are not payable to practitioners notifying in their capacity of Medical Officers of Health, Tuberculosis Officers, School Medical Officers, or Medical Officers of approved sanatoria.

“ *Public Health action following Notification.*—Article XII. of the new Regulations directs that the Medical Officer of Health, or any officer of the local authority acting under the instructions of the Medical Officer of Health, shall make such inquiries and take such steps as may be necessary or desirable for investigating the source of infection, for preventing the spread of infection, and for removing conditions favourable to infection.

“ In investigating the source of infection it is always desirable to examine such contacts of the patient as are willing to be examined. Not infrequently the patient, although he is the first member of the family to come under observation, is not the original infecting case in the household. Hitherto the Medical Officer of Health has been handicapped, except in a few places, by the difficulty of securing expert aid in examining contacts, and has been obliged to carry out this investigation more or less imperfectly. Under the new conditions it is hoped that throughout the country the services of the Tuberculosis Officers will be available for this work.

“ It will be observed that the Medical Officer of Health is made responsible for the action needed to trace sources of infection, to prevent the spread of infection or to remove conditions favourable to infection. This responsibility rests with him whatever may be the local system of organisation as to tuberculosis. The officers of the tuberculosis dispensary acting independently can only deal with the cases attending the dispensary, including those applying for sanatorium benefit, and cannot undertake the work of cleansing, disinfection, or other sanitary improvements that may be needed.

“ It is evidently necessary that arrangements should be made for co-ordinating the work of the Medical Officer of Health and of the

dispensary officers, though the exact system under which this can be most efficiently carried out will differ according to local circumstances.

“ In county boroughs the necessary correlation between the work of the Tuberculosis Staff and of the Medical Officer of Health can readily be secured, as the Tuberculosis Officer is usually a member of the Public Health Staff. Arrangements as to domiciliary visitation—whether they shall be made by the staff of the dispensary or by other municipal officers—are then a question of internal administration. If the dispensary in a county borough is a voluntary institution, it is important that the arrangements made shall secure that officers of the dispensary making domiciliary visits should do so as officers of the Sanitary Authority.

“ In administrative counties, in which the Tuberculosis scheme necessarily embraces the areas of a number of Sanitary Authorities, there may be some difficulty in securing efficient co-operation between the County Tuberculosis Officers and the local Medical Officers of Health. The latter receive notifications of cases which may be unknown to the Tuberculosis Officer; furthermore, they are responsible for taking such action as to disinfection, cleansing and removal of sanitary defects as may be required, in addition to their duties under Article XII. of the Regulations.

“ In order to avoid overlapping and to promote efficiency it will generally be advantageous to appoint the Tuberculosis Officer and Tuberculosis Nurses as Officers of the Sanitary Authority of the district, possibly at a nominal salary.

“ Article XVI. of the Regulations prohibits the putting in force of any enactment with regard to a notified patient which will cause him to be penalised or will restrict or interfere with his means of livelihood. The spirit of this Article is emphasised also in the proviso to Article XI. (2) of the Regulations, which state that—

every notification and every document relating to a person notified under these Regulations shall be regarded by the Medical Officer of Health and by every other person who has access thereto as confidential.

“The necessity for such provisions was felt when the first series of Regulations was issued by the Board, and subsequent experience has shown that their utility in preventing excessive or indiscreet administrative action is not yet exhausted. When the duty of notifying cases of Tuberculosis was first imposed, notification was extended from acute diseases of short duration to a disease the course of which may extend over many years; and the need for cautious action was evident. An extreme instance in which administrative caution is needed is that of a domestic servant who while in service is notified to be suffering from Pulmonary Tuberculosis. It will be observed that under Article XII. of the Regulations the decision as to what it may be “desirable” to do rests primarily with the Medical Officer of Health; and in the case of a domestic servant he would not usually be justified in sending an officer to the house at which she is employed and thus endangering her occupation. An interview with the patient can usually be arranged, and the necessary information secured and advice thus given to her, for instance as to whether it is desirable for her to change her occupation.”

No action was taken by the County Council during the year 1913 in regard to the adoption of a Scheme.

The method of administration which has been adopted in many counties includes a central county administration with the County Medical Officer as the Chief Administrative Tuberculosis Officer, having on his staff one or more Tuberculosis or Dispensary Medical Officers with practical experience of Tuberculosis. The Chief Dispensary Officer advises the Insurance Committee as to whether domiciliary, dispensary, hospital, or sanatorium treatment is required.

In the opinion of the L.G.B. a central county administration appears to be necessary to secure the co-ordination of anti-tuberculous measures, taken by the Insurance Committee and the various District Sanitary Authorities.

The appended tabular statement (A) indicates some want of uniformity and of co-ordination in the various Sanitary Districts of the Administrative County—generally speaking there is no attempt to examine contacts. Until

a County Dispensary (Tuberculosis) Officer is appointed, who may also be nominally appointed Assistant to the District Medical Officers of Health, the search for evidence of disease among contacts is not likely to be undertaken in anything but a perfunctory way.

The Medical Officer of Health of the Loddon and Clavering District (Dr. McClintock) remarks:—"The position of the District M.O.H. is at present very difficult; there needs to be more co-operation between him, the Medical Attendant, and the County Tuberculosis Officer. He never hears whether sanatorium benefit or domiciliary treatment has been granted, and is generally in a complete fog as to what is occurring."

When a complete County Scheme is adopted for the co-ordination of measures against Tuberculosis there will be no grounds for such a statement, because the County Medical Officer of Health is in touch with all the District Medical Officers of Health.

The Reports of the District Medical Officers of Health show that, short of hospital treatment, excellent attempts are being made in many Districts to "follow up" notification. I may mention the Rural Districts of Aylsham, Blofield, Depwade, Docking, Erpingham, Smallburgh, and Walsingham. The following extract from the Report of the Medical Officer of Health for the Erpingham Rural District (Dr. Linnell) indicates the lines of action taken:—"On receipt of a notification a circular is forwarded to the patient, parent, or doctor in attendance setting forth the manner of life that should be lived, with hints as to diet, and instructions as to precautions necessary to prevent the spread of the disease to others. A domiciliary visit is generally made when the importance of the main principles necessary to cure the disease and to prevent its spread is emphasised. As regards the latter, assistance is offered in the shape of disinfection and disinfectants. For insured persons sanatorium benefit in this district takes the form of treatment in Kelling Sanatorium for suitable cases, or of domiciliary treatment for advanced cases, which means relief in shape of milk and eggs. In a purely rural district the problem is naturally not nearly so pressing as in confined districts. The healthy occupations,

fine air and abundant sunshine, in fact the natural advantages of the district, tend to reduce the incidence of Tuberculosis of all kinds. The main obligation upon the Sanitary Authority at the present time is to prevent the spread of the disease by infection from one to another through overcrowding in insanitary cottages, by insisting upon alterations and repairs, and by illustrating their views as to what is to be considered a good cottage, by building a few cottages in each village as time goes on. For the rest, education in the disease as attempted by the pamphlet referred to above will do something. Any thinking person who will read the circular and act upon the advice given will assist its dual purpose to benefit himself and help us to check the dissemination of his complaint. Whenever possible, disinfection is carried out after a death from Tuberculosis. Enquiry is made as to the health of other inhabitants of the house, with a view of getting hold of early and unrecognised cases. Bacteriological examinations are paid for by the Council."

Some District Councils have failed to act on the advice of their Medical Officers of Health on even such small matters as the provision of sputum flasks. Thus the M.O.H. for St. Faith's R.D. (Dr. Long) writes :—
"I cannot help expressing regret that the Council could not accede to my request to supply sputum flasks to those suffering from Consumption who were unable to pay for the same, as there is no doubt that the bacillus-laden expectoration is a fruitful source of infection, especially in the cottage homes of the poor."

SANATORIUM BENEFIT.

When the Insurance Act Sanatorium Benefit Section came into force in July, 1912, the County of Norfolk was fortunate in having within its borders an excellent Sanatorium already in full working order. The new Norfolk Insurance Committee, which commenced to administer sanatorium benefit in July, 1912, was thus at once able to open up negotiations with the governing body. In my Report for 1912 I outlined the amount of sanatorium benefit administered to the end of 1912.

For the first three months in 1913, until my sudden illness, I continued to act as temporary Consulting Officer to the Insurance Committee. Since that time, Dr. Burton-Fanning has undertaken these duties.

Quite early in the year the Insurance Committee decided to extend sanatorium benefit to the *dependants* of insured persons *over the age of 14 years*. During the year ending 11th January, 1914, the estimated income available for sanatorium benefit amounted to £5889, whilst the expenditure amounted to £5145, leaving a balance in hand of £744. It is estimated that if the Committee continues to administer sanatorium benefit on existing lines the expenditure will exceed the estimated income by some £200. Owing, however, to the small cost of sanatorium benefit in the early stages, there is an available balance in hand of over £3000, and the Committee contemplates a more extensive utilisation of the services of trained nurses and provision of shelters.

I have records of 23 cases seen by myself between January and March, 1913. Of these, one was "in extremis," and died while I was on my way to see her. Of the others, 7 were recommended for sanatorium (institutional) treatment and 14 for domiciliary treatment. In 2 of these latter cases the symptoms were indefinite and the patients were temporarily to be under observation until a diagnosis could be made. Shelters were provided for 10 of the domiciliary treated patients, and a spinal support for one. Extra nourishment was allowed under medical necessities in several cases.

Between April and December 108 cases were recommended for sanatorium benefit. 51 were given sanatorium treatment, 57 primary

domiciliary treatment, and 29 secondary domiciliary treatment after residence in a sanatorium, 38 shelters being provided.

In July, 1914, the Insurance Committee had 22 beds at Kelling Sanatorium, in addition to sending odd cases to Bramblewood, Ventnor, and Bournemouth; and also owned 54 shelters distributed over the County. For this information I am indebted to Mr. Frank Jewson, Clerk to the Norfolk Insurance Committee.

The appended tabular statement is a summary of notifications received from District Medical Officers of Health during the year 1913; and also of Deaths from Pulmonary and Non-Pulmonary Tuberculosis, with calculated case rates and death rates.

This table indicates that during 1913 there were in the Administrative County of Norfolk 374 notifications of Pulmonary Tuberculosis and 139 notifications of Non-Pulmonary Tuberculosis. During the same period there were 221 deaths from Pulmonary Tuberculosis and 71 deaths from Non-Pulmonary Tuberculosis. As pointed out in my last Annual Report, the notifications fall short of the actual existing cases without doubt. Thus, no cases of Pulmonary Tuberculosis were notified in the East and West Flegg Rural District for the years 1912 and 1913, although 10 deaths from this disease were registered during the two years.

Still, there can be no question that the disease is decreasing, and the natural conditions in Norfolk are not favourable to the development of Tuberculosis. The actual number of notifications of Pulmonary Tuberculosis were fewer by 114 in 1913 as compared with 1912, a decrease of over 25 per cent.

During the period from February 1st, 1913, to January 3rd, 1914, out of a total of 336 primary notifications of Pulmonary Tuberculosis on Form A, 5 were under 5 years of age, 43 between 5 and 15 years, and 288 were 15 years and upwards. During the same period there were 123 notifications of Non-Pulmonary Tuberculosis (Form A), of which 20 were under 5 years, 31 between 5 and 15, and 72 were 15 years and upward. I made enquiries and ascertained that the majority of the cases under 5 had received medical treatment at home or hospital.

WATER SUPPLY.

General notes on Water Supplies will be found in my earlier Reports. The following are Extracts from the Reports of the District Medical Officers of Health :—

RURAL DISTRICTS.

Aylsham.—“There is no public water supply. Of the private wells some are deep with reliable water, others are surface water wells, and are subject to pollution from any privy bin, slop hole, or soakage cesspools there may be in the vicinity. The removal of these dangers to the purity of the water supply is the constant care of the Inspector and myself.”

Blofield.—“The general conditions prevailing have not materially altered during the past year. At a group of cottages on the marshes at Berney Arms, Reedham, the only available supply is the rain water collected in cemented tanks from the roofs of the cottages. This in dry seasons is insufficient, and the supply is then supplemented by water taken from the river. Some years ago a tube well was sunk, but the water obtained was found to be so impregnated with iron as to be of no use. A case of Enteric Fever has recently drawn special attention to the water supply of these cottages and the owner has been called upon to improve the tanks.”

Depwade.—“No public water service exists in your District. The largest proportion of the drinking water comes from shallow wells. The factories and maltings obtain good supplies from deep borings. In many of the villages the cottagers have to rely upon pond water, to the detriment of their health. During 1913 twenty-one samples of water were analysed. Eight new wells have been sunk. Three water supplies improved. One well closed at Tibenham.”

Downham.—“The total rainfall for the year was 20·73 inches. The supply of water varies in different parts of the District. Where the Marham water passes through the District the supply is plentiful and good. Other parts have to depend upon shallow surface wells, rain water stored in tanks or cisterns, and in some parts the water of the river Ouse is used. This

water can never be considered satisfactory owing to the fact that a considerable amount of sewage matter is allowed to be poured in. An enormous amount of weeds, cut higher up, gradually find their way down to the lower reaches, and at certain times of the year become very offensive. Considerable improvement could be made in the condition of the water if these weeds were periodically removed. This matter has been repeatedly brought to your notice and yet nothing has been done, chiefly because it is difficult to ascertain whose duty it is, or who has the right to do this work. At Crimplesham the water supply is unsatisfactory. If the people could be induced to take the water a good supply could be obtained, as the main of the Wisbech Water Works Company passes through the parish. There are some 30 houses, together with the School (which has no water supply), which could be connected up. During the year I have analysed 33 samples of water from various parts of the District. At Hilgay a well seriously polluted has been closed. At Southery 84 houses were without a water supply and orders were given for the provision of tanks. In only 22 cases has this been complied with. In 9 cases arrangements were made for obtaining a supply, leaving 51 notices outstanding."

Erpingham.—Dr. Linnell gives interesting geological notes concerning this District and its water supplies. Such information is of great value, and I therefore quote several paragraphs:—

"The chalk which forms the solid geology of Norfolk is here from 1,000 to 1,300 feet thick. It is overlain by deep beds of Crag and Glacial Drift, the latter consisting of every kind of sedimentary, a detrital formation from chalk, mud, marl, loam and sand, to gravel, and forming the surface soils of the district. The two highest points in the County are in the District, 332 feet on the Runton-Aylmerton boundary, North-East of Aylmerton Church, and 327 feet on the Beckham-Sheringham boundary near 'The Gibbet.' The hills are capped with sand and gravel, and carry extensive heaths and woodlands; the woods have a large admixture of coniferous trees, and seldom extend beyond the gravel, Eastward of Bodham and Matlaske the lower ground has loam of good quality, except

where blown sand and hill wash have yielded a sandy surface. Westward of that line the lower grounds have covering of boulder clay, varying greatly in stiffness. The only exposures of chalk are along the coast and in the Glaven Valley. The chalk is below sea level at Mundesley and Cromer, rising about 20 feet above the sea at Trimingham and Weybourne. At the foot of the downs, bordering the alluvium at Cley and Blakeney, it rises 15 feet above sea level. Chalk is exposed in the bottom of the Glaven Valley from Letheringsett to Cley. The streams carrying the natural drainage are small; the Glaven, rising at Bodham, flows via Holt, Hunworth, Letheringsett, and Cley, to the sea at Blakeney Harbour. The Ant and Bure have some of their gathering grounds in Briston, Edgefield, Barningham, Gresham, and Antingham. Many small land springs issue from the cliff face on the coast; those oozing from the boulder clay are sometimes highly ferruginous, and cover the cliff face and the vegetation a bright red tint.

“Over a great part of the Erpingham District supplies are obtained from the ‘Drift,’ shallow wells being sunk till the spring is met. Owing to the contorted state of the strata, water is not held over large areas, and wells in close proximity vary greatly in depth. It is often highly charged with iron, and may be malodorous when derived from boulder clay from contact with iron pyrites.

“At Holt, there is a remarkable spring on the Spouts Common which yields at all periods of the year, in both wet and dry seasons, a constant stream of very soft pure water. It is an ordinary land spring fed by surface water percolating through soft permeable beds, until thrown out by the marl and clay beds beneath. The direction and extent of its sources have not been determined.

“The water supply of the District falls into two different classes: a deep well water, and shallow wells.

“Holt and Mundesley-on-Sea are supplied by a good, sufficient, and constant supply of deep well water raised by pumping from their own deep wells in the chalk. Overstrand, Sidestrand, East and West Runton, Felbrigg and part of Roughton are similarly supplied by the Cromer

Waterworks from the deep well at Metton. The Council have recently sunk a deep well and obtained an excellent and abundant supply at 270 feet at the site of the proposed Fever Hospital upon Roughton Heath. A pump will shortly be erected to raise the water, the quantity of which should be practically inexhaustible. In the future it might well be utilised to supply parts of Roughton now supplied by shallow wells, and the village of Northrepps. Kelling is supplied by water laid on from a spring in the neighbouring hills.

“ In the case of almost every other village in the District the water is derived from shallow wells in the Glacial drift. The water therefrom varies according to the position of the well, the care taken in its construction and the measures taken to protect the water from contamination ; it is good, bad, or indifferent in direct ratio to the skill expended in selection of the site and construction of the well. Polluted water may be beautifully clear and sparkling and most palatable ; the presence of excessive nitrogen compounds can only be detected by chemical analysis. If the nitrogen content is excessive, according to accepted standards, it is certain evidence of contamination, and if in conjunction the chlorine in the water is excessive, it is positive proof that the pollution is due to human or animal excreta : The domestic use of such water is followed by evils of a two-fold nature ; the water may contain the bacteria of Typhoid Fever, Enteric and other Diarrhœal diseases, giving rise to an epidemic of these complaints, with the attendant suffering, maiming, and mortality. In this case the outcry is such that the evil is speedily remedied ; but there is a more insidious evil due to the intake of such water over a long period even where the specific organisms referred to above are absent ; it is in the nature of a slow poisoning and results in a chronic condition of ill health, stunting of growth, and liability to other diseases owing to lowered resistance among those who use the water for drinking purposes, with the likelihood of their dissemination among the community. There is a tendency to scoff at these views, but the opinion of the Analyst is not to be lightly waved aside ; the fact that a polluted well has never given rise to an epidemic does not affect the fact that it may do so to-morrow, and to the argument that those who have

consumed the water in the past have lived to a ripe old age, my reply is that they attained old age in spite of the water and that no record is to hand of those who died young because of it. Owing to the expense and other difficulties, shallow wells cannot be done away with all at once, but the principle to which I wish to draw attention is that wherever and whenever it is possible, a supply of deep well water or spring water should be laid on for the inhabitants of the community."

East and West Flegg.—"Eight samples analysed. Two waters were taken for a second analysis after certain works had been carried out to wells where the water was polluted. Four wells were cleaned out thoroughly and provided with adequate covers. In two cases water supplies were laid on from the mains of the Great Yarmouth Water Works Company. The water supplies to five cottages from wells were voluntarily closed and supplies laid on from the Great Yarmouth Water Company's mains."

Forehoe.—"The water supply for the District is mainly from wells: many of these are very shallow, and the quality of the water necessarily varies in these. Seven specimens have been submitted to analysis, of which six were satisfactory."

Henstead.—"The water supply of the District is the same as in previous Reports; the estimated number of houses in the District is 2,466, of which 2,258 obtain their water from either deep or surface wells; 166 houses in Trowse Newton and 32 in Cringleford obtain their water from the Norwich Water Company's mains, and 10 houses in Whitlingham from mains laid by the Norwich Corporation from a deep well on the Whitlingham Farm. In most cases the water supply is situated within reasonable distance of the houses, but there are a few cases where, owing to the great cost of sinking a well, the occupiers are put to a certain amount of hardship by having to fetch their drinking water sometimes as far as 200 yards or more. Eleven samples of water were taken for analysis during the year and analysed by the Public Analyst. The reports on 3 of the samples were good, 2 of moderate quality, 1 of doubtful character, and 5 were badly polluted with sewage. Four wells were thoroughly cleansed during the year, 1 of

which failed to improve in quality, 2 wells were closed as being unfit for drinking purposes, 2 cottages were able to obtain a supply at a more reasonable distance, and to 9 cottages the work of obtaining a fresh supply is still in hand. Two new wells were sunk to supply 3 new houses, and 6 new cottages have the water laid on. Two water certificates were granted under the Public Health (Water) Act, 1878."

Loddon and Clavering.—"This is on the whole good—no wells have been found to be polluted. There is no public water service in the District; the water is obtained from deep and shallow wells according to the locality. In some Districts the water supply is insufficient and bad, the cottagers depending on ponds for their drinking water, and, in many instances, I fear, they do not boil it. One well was closed for drinking purposes. Two new ones were sunk."

West Lynn.—"The water cart has been in constant use during the year."

Freebridge Lynn.—"The water supply of the District is mainly from wells. In two villages water is laid on—(1) Gaywood from the Lynn Waterworks at Gayton; (2) Castle Rising from the Babingley Stream. In some parts of the District water is supplied from running streams, and the supply of water to the District as a whole is very fair, but in the case of Great Massingham it is difficult to get a supply of pure water, and as yet the supply from the new well is too impure to allow of it being used for drinking purposes, and it is proposed to sink a tube to see if pure water can be found. The present well is evidently contaminated by surface water leaking into it; in the summer the County Medical Officer of Health (Dr. Nash) and myself investigated the surroundings of this well, in company with the Sanitary Inspector, and we found the immediate neighbourhood of the well highly polluted by present and past sewage material, and in our opinion the present site of the well is quite unsuitable for a well. Seven samples of water have been submitted to bacteriological examination, and only in two cases have the results been satisfactory—Soignee cottages, Westacre, and Ashwicken School supplies. Steps are being taken to provide a more pure

supply where the contents of the water were found to be unfit for dietetic purposes. The Great Massingham well has been pumped out twice during the year; a tube has now been driven down the well, and has reached a chalk stratum at a depth of 160 feet; another sample of water will be taken for analysis as soon as it is possible. A new 4-inch water main has been carried a distance of 300 yards further along the Wootton Road in the Parish of Gaywood, thus making a supply of pure water available to the large number of houses which the main passes; the occupants of which are deriving their supply from the Gaywood River, one house has been already supplied from the new main."

Marshland.—"Whilst half of the District receives an ample supply of excellent water from the Wisbech mains, a large portion still depends on cisterns and shallow wells, which generally prove unsatisfactory both in quality and quantity. During the year negotiations were entered into with the Wisbech Water Works Co. for a supply of water to Walpole St. Andrew, but the terms asked were so high as to preclude the scheme being proceeded with."

St. Faith's.—"The water supply in parts of Catton and Sprowston is derived from the Norwich Water Company, and is a constant supply. In most of the Parishes in the District the supply is derived from surface wells. I have not heard of any shortage of supply during the past year. Three analyses were made at the instigation of the Council, which led to condemning the supply from one well, and a supply from a driven tube now takes its place. No polluted streams entering the river are known to exist in the District."

Smallburgh.—"Water supply is plentiful, being obtained in nearly all cases from wells. There are no water works or public supply in any part of the District, but the provision of a pure public supply to the town of Stalham will have to be taken into serious consideration, as I fear many of the wells in this town are polluted; and, owing to the local conditions of drainage, it would be, I fear, useless to sink fresh wells in the town. Your Council have had the matter before them lately."

Swaffham.—"The water supply of the District is entirely from wells, mostly shallow, and very liable to pollution when situated, as frequently happens, too close to privies or other sources of contamination. I have made chemical analysis of nine samples of water and found five unfit for use. Three new wells have been sunk, and others cleaned and repaired. There is not much pollution of streams and no action has been necessary."

Thetford.—"There is no public water supply in the District, and most of the houses are supplied by surface wells which are liable to pollution. Five samples of water were analysed; one of these was found to be polluted and the well closed."

Walsingham.—"The water supply of the District, with the exception of the artesian well at Melton Constable, is exclusively derived from surface wells of varying depth. These wells are in many cases defective in structure and are very liable to pollution from their immediate surroundings. 40 samples of water have been taken, 26 of which were found on analysis to be satisfactory and 14 contaminated. 5 samples were forwarded to the County Analyst. In those cases where the water was contaminated the wells were cleansed out and any defect made good. No definite steps have yet been taken with regard to the water supply of Fakenham."

Wayland.—"Water supply is entirely from wells, mostly of the shallow or surface type, the purity of the water depending on the precautions taken to prevent pollution: first, by adequate cementing of the upper part of the well to prevent percolation; secondly, by removing all possible sources of contamination, such as privy cesspits, pigsties, etc., to a safe distance. There are many wells in this District where these precautions are not taken. I have made chemical analyses of 20 samples of water, of which 12 were unfit for use. Generally, the source of pollution was fairly evident in the immediate vicinity of the well. There were 5 new wells sunk and 15 were cleaned out and repaired."

HOUSING AND TOWN PLANNING.

Every Medical Officer of Health of a Sanitary District is required by Article V. of the Housing (Inspection of District) Regulations, 1910, to include in his Annual Report information and particulars in tabular form as to (*a*) the number of dwelling-houses inspected under and for the purposes of Section 17 of the Act of 1909; (*b*) the number considered on inspection to be in a state so dangerous or injurious to health as to be unfit for human habitation; (*c*) the number of representations to the Local Authority with a view to the making of closing orders; (*d*) the number of closing orders made; (*e*) the number of houses in which defects were remedied without the making of closing orders; (*f*) the number which after the making of closing orders have been made fit for human habitation; (*g*) the general character of the defects found.

The number can be cast into tabular form for the various Districts comprised by the Administrative County as appended:—

CLOSING ORDERS.

During 1913 I received, in compliance with Section 69 (1) of the Housing, Town Planning, etc., Act, 1909, notice of Closing Orders under Sub-section (2) of Section 17 of the same Act, as follows:—

<i>Sanitary District.</i>	<i>Parish.</i>	<i>No. of Dwellings.</i>	<i>Date of Closing Order.</i>
Blofield	Thorpe St. Andrew	1	1/1/13
	Reedham	1	28/1/13
	South Walsham	1	8/10/13
	„ „	1	10/10/13
	Upton-with-Fishley	2	19/11/13
	Halvergate	1	19/11/13
	Gissing	1	27/1/13
Depwade	Alburgh	1	10/2/13
	Carleton Fen	1	7/4/13
	Burston	1	7/4/13

Table of Particulars taken from the Reports of District Medical Officers of Health for the Year 1913 under Article V., Local Government Board Order, September 2nd, 1910.

District.	No. of Dwelling Houses inspected.	No. of Dwelling Houses reported as unfit for human habitation.	No. of Representations to the Local Authority.	No. of Closing Orders made.	No. of Dwelling Houses where defects were remedied without Closing Order.	No. of Dwelling Houses made fit after Closing Order.	Remarks.	No. of new Cottages recorded in Report of M.O.H.
RURAL DISTRICTS.								
14 Aylsham	346	9	9		30		Large supply of cottages with 3 bedrooms required	2
15 Blofield	507	12	12	12		4	One pulled down by owner	
16 Depwade	2733	9	9	8	33	2	Roofs, walls, and ceilings dangerous, dampness and insufficient light Four cottages closed voluntarily	17
17 Docking	297	4	8	8	9			
18 Downham	301	61	6	6	43	4	Dampness, badly lighted and ventilated, no provision for disposal of refuse Five demolished, 3 rebuilt	16
19 Erpingham	275	37	10	9				24
20 Flegg, E. and W. . .	170	9	9	9	180		Three closing orders in abeyance. Procedure has been made under Section 15 of the 1909 Act, instead of under Section 17 of such Act Shortage of cottages	31
21 Forehoe	318	8	8	2	6		Many cottages lacking proper accommodation	18
22 Henstead	402	5	2	2	135		Defective sanitary accommodation and dampness Three cottages rebuilt	14
23 Loddon and Clavering ..	321	2					The 2 found unfit for habitation were voluntarily closed	
24 West Lynn	190				40			2
25 Freebridge Lynn .. .	537	69			237		Remaining defects all receiving attention	18
*26 Marshland	210	2	2	2			One house demolished; 38 overcrowded	44
27 Mitford and Launditch ..	219	3	3	3				
28 St. Faith's	320	5	4	4	23	3	Damp floors	3
29 Smallburgh	408	16	16	1	12		More good cottages required	6
30 Swaffham	245	3	3	3	198			8
31 Thetford	159				27		Insufficient light and ventilation and dampness	2
32 Walsingham	121	14	14	14	104	6	General want of cottages	21
33 Wayland	304	54	42	4	6		More Closing Orders to be made when new cottages built	
TOTAL RURAL DISTRICTS ..	8383	322	157	87	1083	19		226
WHOLE COUNTY ..	9563	413	249	123	1285	48		287

* No reply to special request for detailed information.



District.			No. of Dwelling Houses inspected.	No. of Dwelling Houses reported as unfit for human habitation.	No. of Representations to the Local Authority in view of Closing Order.	No. of Closing Orders made.	No. of Dwelling Houses where defects were remedied without Closing Order.	No. of Dwelling Houses made fit after Closing Order.	Remarks.	No. of new Cottages recorded in Report of M.O.H.
MUNICIPAL BOROUGHES.										
1	King's Lynn	..	61	44	44	14	10	27	General dilapidation, bad ventilation, dampness, want of light and air	
2	Thetford	..	25	12	12		15		Dampness, bad ventilation	50
URBAN DISTRICTS.										
3	Cromer	..	22				36		Houses damp	
4	Dereham	..	118				87		Want of ventilation, insufficient light	2
5	Downham Market	..	70		1	1	30		Dampness, insufficient ventilation and light	
6	Diss	..	104	15	15	4			Four houses pulled down	
7	Hunstanton New	..								
8	Sheringham	..	170						The greater portion of the old property has been inspected 109 defects under repair	(Plans have been passed for 12 cottages)
9	Swaffham	..	100				20	2	Dampness, ceiling and walls very filthy Two houses pulled down	
10	Walsham, North	..	12	5	5	5				4
11	Walsoken	..	150	3	3		1		109 houses found satisfactory 51 houses defects were remedied 2 houses closed voluntarily	5
12	Wells-next-the Sea	} Port	348	12	12	12	3		Dampness and inefficient light	
13	Do.									
TOTAL URBAN DISTRICTS ..			1180	91	92	36	202	29		61

<i>Sanitary District.</i>	<i>Parish.</i>	<i>No. of Dwellings.</i>	<i>Date of Closing Order.</i>
	Tivetshall St. Margaret	1	7/4/13
	Roydon	2	14/7/13
	Hempnall	1	6/10/13
	Ashwellthorpe	1	3/11/13
Downham	Southery	2	7/3/13
	Stow Bardolph	2	6/5/13
	Downham West	4	25/7/13
	Hilgay	9	14/11/13
	Wallington-cum-Thorpland	1	14/11/13
Mitford and Launditch	Litcham	1	17/2/13
	Shipdham	2	20/5/13

In addition, the Clerks of the following Districts, in reply to a circular letter I addressed to all the Clerks of the Rural District Councils, sent me copies of representations made by the District Medical Officers of Health, as follows :—

Smallburgh	East Ruston	2	4/2/13
	Hickling	4	4/2/13
	Felmingham	1	14/10/13
Walsingham	Fakenham	1	8/10/13
	Barney	1	22/10/13
Wayland	Carbrooke	2	30/12/13
	Great Ellingham	2	„
	Hockham	2	„
	Rockland St. Peter	1	„
	Scoulton	2	„
	Shropham	2	„
	Snetterton	8	„
	Thompson	1	„
	Watton	2	„

The L.G.B. expect District Medical Officers of Health to include, when reporting on Housing in their Annual Reports, information as to the character and sufficiency or otherwise of houses for the working classes in the District, their fitness for habitation, and particulars in any cases of overcrowding and the action taken in such cases. They also require information as to the number of new houses erected or in course of erection; as to supervision over the construction of new houses in relation to bye-laws; and where a working-class population is growing, the proportionate growth of working-class dwellings.

When this information is given in proper form and detail in all the District Reports it will facilitate the duty of a County Medical Officer of Health to devote a section of his Annual Report to the subject of the administration of the Housing of the Working Classes Acts, 1890-1909, within the County.

It is clear from the District Reports for 1913 that an increased interest is being taken in the housing question, and Rural Districts which have hitherto neglected building bye-laws now are beginning to realise their responsibility for having such bye-laws.

In the Downham Rural District the new bye-laws (building) came into force from January 1st, 1913.

The policy of the County Public Health Committee has been to give time to the various Rural District Councils to comply with the requirements of the building Acts; and so far we have not exercised the statutory powers conferred on County Councils under Section 45 (2) of the Act of 1890 empowering a County Council after due notice to the Local Authority to vest in itself the powers of such Authority with regard to the closure or demolition of any insanitary or obstructive dwelling-house or building which the County Council consider the Local Authority have failed properly to deal with under Part II. of the Act. In the County of Staffordshire the County Council have appointed a County Sanitary Inspector to act under the instructions of the County Medical Officer, enabling the latter to submit detailed reports dealing with the general sanitary circumstances and adminis-

tration of various Districts; and this new departure in the public health work of that County Council is stated to have already had the most beneficial effect in stimulating local sanitary administration. In Norfolk I have visited and inspected various parishes in different Districts from time to time, making notes as to individual houses and areas; but such notes necessarily cannot be so complete in detail as would be the case were a County Sanitary Inspector to first make a detailed survey. The attention of District Councils concerned is, however, drawn by the County Council to paragraphs in my Quarterly Reports relating to parishes in their Districts, and their observations on the same are requested. This action has undoubtedly stimulated various District Councils, and considerable progress was made in 1913, as will be seen in the extracts given below from the District Reports. When once attention is directed to a particular parish and local interest stimulated, an opportunity occurs of imparting valuable information as to the working of the Act. The activities of the local District Medical Officer of Health and of the Inspectors often, as it were, renovate a village. Instances which at once occur to mind are the markedly improved appearance of Skeyton in Aylsham and Litcham in Mitford and Launditch, since active house-to-house inspection was instituted.

This interest in the housing question is further beneficially stimulated by the visits of inspection which are being made by Medical and Housing Inspectors of the Local Government Board. In many instances these gentlemen have been good enough to inform us as to their intended visits, and I have invariably arranged to have at least one day's inspection in company with the L.G.B. Inspector. Much remains to be done both in the way of stimulation and of provision of cottages, but Norfolk is undoubtedly making headway. The principal difficulty where wages are so low is to erect habitable cottages at an economic rent. The erection of cottages would be greatly accelerated could this difficulty be overcome.

I quote rather extensively from the Reports of the District Medical Officers of Health :—

URBAN DISTRICTS.

Cromer.—"Under the Housing (Inspection of District) Regulations, 1910, I have visited with the Sanitary Inspector 22 houses; total visited up to date, 360; of this number 209 were satisfactory. The estimated number of houses in the District under £16 rental was 446; the estimated number coming within the Act (New Tenancies) being 202 at 31st March, 1913.

"On the 30th June there were 995 houses inhabited, as compared with 983 on the 1st October, 1912."

East Dereham.—"The general character of defects found to exist and remedied were:—want of ventilation, insufficient light, defective guttering and spouting, roofs, walls, paving, and insufficient or unsuitable closet accommodation. 44 vault closets were converted to pails, 21 new pail closets built, 5 new w.c.'s built or converted."

Downham Market.—"The housing question as it affects your District requires some consideration.

"No new houses having been built during the year, the number of houses remains the same, viz., 650. Of this number 410 may be classed as cottages, the rental of the majority being under £11 per year. Rents are higher than in the surrounding villages, and it is not possible to get a decent cottage for less than £7 or £8. The wages of the unskilled working class average from 15s. to 16s. per week, and those that work in the town probably do not get anything extra corresponding to the harvest money of the village worker. However, if any new houses were built there would be no difficulty in finding tenants at £8 or £10 per year, and every house so built would leave a vacant one to be occupied by those at present living in unsuitable houses, some of which are not really fit for human habitation although it has not been considered advisable to condemn them. Many of these are only suitable for old married couples or old age pensioners. They certainly are quite unfit for young children to live in, although, unfortunately, they do occasionally attract families, some of whom come in from outside the District. The presence of these, apart from the fact that they produce cases of overcrowding, are not always desirable.

“ A good deal of improvement has been effected in many of the cottages during the past two or three years, but I am sorry to say that there are landlords who, in consequence of making slight improvements, have raised rents already too high for the class of cottage.

“ Very little more can be done towards improving the older houses. Of these only three are suitable for accommodating a family, but the rents are over £10 and therefore too high for a working man. Two of the houses now empty are about to be re-built and enlarged, the others are not large enough for anyone with more than two children.

“ There is undoubtedly a need for a few more cottages capable of accommodating the larger families, and as private enterprise is apparently out of the question it will become necessary, as occasion demands, for you to consider the question of building.

“ The only closing order made was followed by a demolition order. This house is in a dangerous and dilapidated condition. It is occupied by a man with a large family, and he has not been able to get a suitable house. Your Council decided to postpone the operation of the demolition order for three months longer ; nothing, however, was done and the demolition order will be proceeded with.”

Diss.—“ The Act accounts for the greater number of inspections. 104 houses have been inspected and a total of 344 inspections have been made. The 104 houses inspected comprise 566 rooms (including business, storage, and other rooms), and were occupied by 389 persons, which gives the approximate average number of occupants per house as 3·8. There were 10 cases of overcrowding, which shows nearly 10 per cent. of the houses inspected to be overcrowded. As to the number of rooms in these houses—

4	had	2	living	rooms	and	2	sleeping	rooms
2	„	2	„	„	„	3	„	„
2	„	1	„	„	„	1	„	„
1	„	1	„	„	„	2	„	„
1	„	3	„	„	„	3	„	„

The particulars of living and sleeping rooms in the houses inspected are as follows :—

12 houses had 1 living room and 1 sleeping room						
20	„	1	„	„	2	„
1	„	1	„	„	3	„
4	„	2	„	„	1	„
33	„	2	„	„	2	„
20	„	2	„	„	3	„
1	„	2	„	„	4	„
1	„	2	„	„	5	„
1	„	3	„	„	2	„
7	„	3	„	„	3	„
4	„	3	„	„	4	„
<hr/> 104		<hr/> 187			<hr/> 233	
		<hr/> 420				

“ It will be seen from this that there is need for a small class of house with six rooms. Four of the 33 houses with two living and two sleeping rooms were overcrowded, and no doubt many others would be found so if they were carefully measured up. Only 13 of the 104 houses inspected were passed as being reasonably fit and requiring no notice, 63 had no refuse receptacles, 32 had no proper food stores, and 43 were damp (which varied a great deal). Reports of 127 houses have been presented to your Council, and 127 notices have been served on owners this year, but of the 104 inspected this year 82 notices have been served; 18 have been complied with and 23 partly complied with. 15 houses have been represented to you as being unfit for human habitation, but on your Committee inspecting some of these, they were of the opinion that they could be made habitable, and with the sanction of your Council notices were served accordingly. Four houses have been demolished during the year. It is apparent that owners of property, in a large number of cases, are either very dilatory or intend to ignore the notices, or they want to do just as much work as it pleases them and no more. I will admit there is some excuse for those landlords who are really poor, but if we stand still to consider them we shall most likely be getting a hint ourselves from headquarters. There is a great deal of work

to be done yet in connection with the notices already served, and the only way to get it done will be to bring greater pressure to bear on the owners. In those cases where notices have been complied with, the work has been done in a satisfactory manner. From the number of inspections already made and the hindrance caused by the large amount of re-inspection work, I consider it will be another two years before the inspection of the whole district is complete."

New Hunstanton.—"House accommodation is ample. Most of the houses are of recent construction and conform to the bye-laws. Notwithstanding this, I find that a house-to-house inspection of all houses let at a rental of £16 and under is necessary and that a register of these houses must be kept. I informed your Council and understand this is now being done. For the past year I can only return the number of dwelling-houses inspected under and for the purpose of Sec. 17 of the Act of 1909 as none."

Sheringham.—"In my last report attention was called to 12 of the worst cottages in the district and the possibility of the Council taking the necessary steps to erect cottages before closing these. In the spring I accompanied a Sub-Committee of the Sanitary Committee in an inspection of the worst cottages in the Urban District, when it was agreed that a number of cottages were unfit for habitation and that it was necessary to take steps to remedy the matter.

"It was proposed that the Council should erect workmen's cottages, a dozen if necessary, upon the site in the Cromer Road the property of the Council. The matter was sympathetically discussed, but eventually postponed to allow the general body of ratepayers to become cognisant of what was proposed, and will come up for discussion again during the year. Personally I think the attitude of the Council was over-cautious. The evil is admitted; the remedy is prescribed by Act of Parliament in the shape of the Housing and Town Planning Act, which gives powers to Local Authorities to build cottages after inquiry by the Local Government Board, which lends money for the purpose at 3 per cent., repayable in sixty years. There is a feeling that private enterprise may come to the rescue, and plans

have been passed for 12 cottages to be erected on the Cromer Road. If these 12 cottages are all erected at once there will still be a want, and in a matter like this I think it is for the Council to lead and not to follow, considering that there is a reasonable prospect of being able to charge an economic rent. If a small charge upon the rates is entailed, surely the ratepayers of a seaside resort will not grudge money spent to beautify the village by removing the hovels unfit for habitation and prevent the misery and ill-health caused by living therein."

Swaffham.—"Under the Act the District has been systematically inspected, and the property which comes under the Act has been found in a clean and habitable condition. The overcrowding has not decreased during the year. In several instances cases have been found of gross overcrowding, but this cannot be remedied as there are no houses for people to go into if they are turned out. It is necessary for more houses to be built in the town."

North Walsham.—"There are still many houses in the District which are in very bad condition, and it is hoped that under this Act they may all as soon as is possible and practicable be rendered decently habitable. Some difficulty has been found by those who have been obliged to leave closed houses to find others to live in. I think the difficulty has been a real one as the people turned out are generally poor and require a house with a small rent. Such houses, fit to live in, are scarce, and North Walsham shares with other places for want of them."

Walsoken.—"The housing accommodation appears to meet the requirements of the District; a few houses have been erected, but no complaint of overcrowding has reached me."

"Under the Town Planning Act a complete survey of the District has been made, and in all cases where it was considered necessary that improvements should be made, with the exception of two or three, these have been done; many roofs repaired, ventilation improved, yards properly drained, houses made more habitable, and generally much more cleanly. There

exist now no houses unfit for habitation, the two houses closed temporarily having now been put in good repair, and it has not been found necessary to issue any fresh closing order."

Wells.—"An Inspector was appointed in August to carry out the requirements of this Act, and I am convinced by his reports and my own observations that such house-to-house visitation was by no means premature. It is obvious that many families are living under conditions which they would willingly better, if circumstances existed for them to do so. There is unquestionably a shortage of suitable cottages for the working man with a growing and increasing family, and consequently cases of overcrowding continue which should be abated. It is absolutely imperative that the Council should use its powers and facilities under this statute to provide additional housing accommodation for the working classes. Apart from the fact that many growing families are housed under undesirable conditions, it must be borne in mind that isolation in cases of infectious disease is an impossibility under these circumstances. I sincerely hope that the Housing Committee recently appointed will soon justify its existence by prompt and active measures in this important matter."

"The following are the chief causes of complaint where in the 281 cases abatement was called for:—Dampness, defective drains, lack of eaves and downspouts, inefficient ventilation and light, fixed windows, want of suitable food store; insufficient privy accommodation; unsuitable position of privy, existence of privy vaults (12); want of impervious pavement to yard surface; pollution of wells; overcrowded sleeping accommodation (5). The notices requiring abatement of nuisance and the closing orders were not served till December, so that a list of improvements actually done cannot be submitted, but I may mention that many of the works of repair, improvements and renovations ordered in the 281 notices have been carried out and many more are in progress."

King's Lynn M.B.—"Of 5,130 (estimated) houses in the Borough 4,144 rent at £16 or under. They are classified in 15 sub-districts. The houses in 'Old North End' are mostly old and a number in a bad state of

repair. In the Highgate District during the last five years 23 closing orders have been served, 2 houses demolished, 11 voluntarily repaired, and 19 repaired after closing orders. In Kettlewell District there are a large number of yards with old houses, and during the last five years 48 closing orders have been made, 2 houses demolished, 2 voluntarily repaired, and 10 repaired after closing orders. The Jews' Lane District consists chiefly of old houses and tenements renting under £16. During the last five years 19 closing orders have been served, 14 houses demolished, and 5 repaired. In New Conduit Ward, consisting mostly of yards with old houses, during the past 5 years 7 closing orders have been served, and 7 houses repaired after closing orders. In Checker Ward many are old houses and a number are not in good repair and have not proper air circulation. During the last 5 years 10 closing orders have been served, followed by 8 demolition orders, 2 houses being repaired after closing orders. In Trinity Hall there are many old houses, and a number of yards; and nearly half the houses have a rent of under £6. In Sedgeford Lane Ward a large number are good houses, but it contains also many yards with old houses. During the last 5 years one house has been voluntarily repaired, 11 closing orders have been served, 2 houses demolished, and 4 repaired after closing orders.

“ Stonegate Ward contains a number of small modern houses in good repair, but there are many old houses with cheap rentals. A good deal of attention has been paid to this district during the last few years. During the past 5 years 14 closing orders have been served, 9 houses demolished, and 4 repaired after closing orders. South Lynn (within) contains a considerable number of good modern houses with rents from £8 and upwards. There are also a number of yards with old houses, but some of these have been repaired lately. During the past 5 years 11 closing orders have been served, 2 houses demolished, and 9 repaired after closing orders. South Lynn (without) consists mostly of modern houses of the six-room type, and with the exception of some cases of dampness are all in good order. Two houses in this District were found to be defective, but have since been repaired.

“At the time when the last census was taken (1911) there were a number of houses, in the North End of the town especially, which were unoccupied, but now there are hardly any to let. The reason of this is probably owing to the extra amount of labour used to accommodate two new industries in the town and the increased business of two other large concerns. The whole matter is at the present time under consideration of the Town Council, and I hope shortly some way of providing this accommodation may be found.”

Thetford M.B.—“The year has seen a great improvement in the housing of the working classes in the town. By September 50 cottages, erected by the Council under the Housing and Town Planning Act, were ready for occupation. Early in the year applications were received for tenancies, and in May the houses commenced to be occupied. The relief which these houses afforded the district may be judged from the fact that though the greater part of these houses were occupied at the close of the year, there were few empty houses in the town, and these were of a type not suitable for working class dwellings. Although a few tenants were drawn from outside the town, most of the tenants were young people waiting to be married, but who could not get suitable houses; and in a few cases two families had been living in one house and so causing overcrowding.

“Inspections which were being carried out at the end of last year have been continued, and all properties which were found to be defective were noted. Towards the end of the year some of the houses in the town became vacant. These were specially inspected, and the owners were requested to remedy all defects before the houses were re-let. As more of the Council's houses became ready for occupation, it was found possible to deal effectively with the houses which were discovered to be unfit for human habitation. Inspections were made and special reports were laid before the Sanitary Committee asking for statutory notices to be served on the owners. A Sub-Committee was appointed to visit the properties and to consider the reports, the final reports being laid before the Council for confirmation. In this way 12 houses were dealt with; a number of less defective houses being dealt with under Section 94 of the Public Health Act of 1875. In the

houses dealt with under the Housing and Town Planning Act, the defects arose chiefly from dampness in a very marked degree; general dilapidated structural conditions, in some cases actually dangerous; poor light and ventilation, which could not be easily remedied. In the cases dealt with under the Public Health Act, there were slight degrees of dampness, defective drains, poor privy accommodation, and leaky roofs. The closing orders which would follow the statutory notices had not been served at the close of the year. Five houses known to be defective, and which in the ordinary course would have been closed, were closed voluntarily, and have been or will be demolished.

“It has been possible to deal with cases of overcrowding known to exist in the town. Effective action has been taken and there is now little, if any, overcrowding in the district.”

RURAL DISTRICTS.

Aylsham.—Dr. Back writes:—“As the result of three years’ work, the Council are now in possession of most valuable information relating to the housing conditions existing in eighteen parishes, and it is clearly of importance that full advantage should be taken of this information before it becomes unreliable by the lapse of time.

“With regard to the provision of new cottages, I regret to have to report that up to the present the nett result of the three years’ work is represented by two cottages now nearing completion in the parish of Tuttington. These cottages, built at the instigation of the Sanitary Committee by the Master and Fellows of Gonville and Caius College, Cambridge, cannot probably be let at an economic rent to agricultural labourers; but they will be the means of setting at liberty other cottages which are habitable, and so, by a general process of “moving up,” it will be possible to close some of the worst cottages in this village. Where private enterprise fails, as in Skeyton, cottages can be provided under Part III. of the Act.

“It would be most useful, as soon as practicable after the inspection of a village is completed, for a small Sub-Committee to visit the village,

when it would become apparent to the Committee that more cottages of a good type were necessary in many of the eighteen villages already inspected.

“ Under Section 15 of the Act a large amount of useful work has been carried out in those villages which have been systematically inspected. In some instances the general improvement in the sanitary condition of the whole village is very marked. The Committee have adopted persuasive and informal methods in carrying out this part of the work, and generally, owing to the willing co-operation of owners of property, with success. In making re-inspections, however, it is found in some parishes that a considerable part of the work ordered to be done has been postponed. This points to the desirability of some set time being given within which the repairs must be carried out.

Dr. Back suggests a period of 6 months, and adds :—“ The loss of time now entailed by re-inspections and correspondence relating to back work very seriously impedes the progress of the systematic inspection of the District. It is a matter of great difficulty to say when a cottage may be described as in ‘ a state so dangerous or injurious to health as to be unfit for human habitation,’ but, however desirable it might be to close a cottage on account of its dilapidated condition, it is obviously impossible to do so while there is no other cottage available to shelter the family occupying it. Consequently the benefit of the doubt is often given to cottages which might very well be condemned, and they are patched up and suffered to remain.

“ During the past year, the parishes of Burgh, Swanton Abbott, Scottow, Banningham, Ingworth, Alby with Thwaite, and Themelthorpe have been inspected. Records of the sanitary condition of a total of 346 cottages have been made, and among these structural defects were found in 108. A proportion of these defects have been remedied, but many are still in hand. Of these 346 cottages, only 108, or less than a third, have more than two bedrooms; and as among the 108 better class cottages many are occupied by small tradesmen and others, it follows that it is rarely the good fortune of an agricultural labourer to secure a cottage with three bedrooms for the accommodation of his family. The insuperable difficulties that arise

in providing wholesome sleeping arrangements for even a small family of boys and girls, when they arrive at the age of eleven or twelve, in a two-bedroomed cottage, will at once be apparent; and when the family is large and the two bedrooms are small, overcrowding of the worst description results. There can be no question as to the need of a larger supply of cottages with three bedrooms in these parishes.

“The following table gives the principal defects found on inspection :

	Burgh.	Swanton.	Scottow.	Banningham.	Ingworth.	Alby with Thwaite.	Themelthorpe.	TOTALS.
Cottages Inspected ...	43	92	67	35	32	67	10	346
With Structural Defects .	10	22	36	15	1	15	9	108
Defective Privies ...	17	32	39	18	3	12	4	125
„ Ventilation ...	8	24	38	10	4	8	7	99
„ Drainage ...	2	3	3	—	3	4	—	15
„ Water Supply..	4	18	4	9	4	10	4	53
„ Eaves Gutters .	7	16	46	—	2	10	—	81
Damp Cottages ...	8	10	18	—	—	1	—	37
With One Bedroom ...	2	4	3	1	2	2	—	14
„ Two Bedrooms ...	33	49	48	24	17	43	10	224
„ Three or more ditto	8	39	16	10	13	22	—	108

“No ‘Local Inquiries’ relating to housing conditions have been held during the year.”

Blofield.—Dr. Back reports :—“Great activity has been shown during the past year by the Special Committee of the Council formed for carrying out the provisions of this Act. The vigour with which the work has been carried on is mainly the result of the personal inspection of the most insanitary cottages in each village by your Chairman and the small Committees appointed for the different villages. During the year 1913 records have been made of 507 cottages and complete inspections made of seven

parishes, namely, Halvergate, Moulton, Reedham, Ranworth, South Walsham Panxworth, and Hemblington. Local enquiries, under the chairmanship of Major Astley, have followed the inspections of Acle, Upton, Halvergate, Reedham and South Walsham. The enquiries, held in the evenings, have been well attended, and generally a fair number of applications were made for good cottages with three bedrooms and a garden. For this some of the applicants were prepared to pay six or seven pounds a year, but with many who were occupying insanitary cottages there was no inclination to pay a higher rent than that to which they had been accustomed. Although these village enquiries may have been somewhat disappointing from the point of view of the amount of information gained, they have without doubt been a most valuable means of stimulating local interest and imparting information as to the working of the Act.

“In April the District was visited by Mr. H. Ascough Chapman, of the Local Government Board, with special reference to housing conditions. After a most careful inspection of the District recommendations were made to the Council that additional cottages were needed in the parishes of Acle, Upton, Halvergate, Reedham and Blofield. Before the end of the year land had been purchased in Acle, and a Local Government Board inquiry held with reference to a proposed loan of £750 to cover the expense of building four cottages. Inquiries have also been made in the other villages named with a view to the purchase of land. Closing orders have been made in respect of eighteen cottages (including three one-roomed tenements). Six of these have been made habitable; in one instance two cottages having, with great advantage, been thrown into one. One has been pulled down by the owner and the remainder are now standing empty.

“Under Section 15 of the Act a large number of cottages have been placed in a proper state of repair in the villages that have been inspected. Generally speaking, owners of property have readily complied with the notices given, and it has been necessary only once to have recourse to the powers conferred on Local Authorities by Sub-section 5 of Section 15 to do the necessary repairs and recover from the owner. The chief defects found to exist were:—Insufficient bedroom accommodation; small badly-ventilated

and lighted bedrooms ; dampness of walls. The following Table shows the bedroom accommodation in the seven parishes which were inspected during the year :—

	Halvergate.	Moulton.	Reedham.	Ranworth.	South Walsham.	Panxworth.	Hemblington.	TOTALS.
With one bedroom	19	2	12	4	13	2	3	55
„ two bedrooms	29	24	99	24	42	11	23	252
„ three or more do.	8	17	59	10	40	8	25	167
ONE-STOREYED COTTAGES.								
With one room	—	—	—	—	—	—	—	—
„ two rooms	—	—	—	—	1	—	—	1
„ three rooms	1	2	—	1	3	—	—	7
„ four rooms	—	—	4	1	2	—	2	9
„ five or more	1	—	1	—	—	—	—	2

Depwade.—Dr. Maidment reports :—“ During the year 1913 the following parishes have been systematically inspected :—Dickleburgh with Langmere, Fritton, Hardwick, Hempnall, Morningthorpe, Redenhall with Harleston, Shelton, Shimpling, Starston, Stratton St. Mary, Stratton St. Michael, Thelveton, Tibenham, Tivetshall St. Margaret ; Alburgh, Ashwellthorpe, Aslacton, Bunwell, Carleton Rode, Denton, Forncett St. Mary, Fundenhall, Tacolnestone, Tasburgh, Wortwell.

“ In all 2,733 houses were inspected. Personal visits have impressed me with the fact that many of the houses are short of the standard of accommodation necessary to health, and the working classes lament that they cannot obtain more suitable dwellings in the District. The only remedies are the reconstruction or rebuilding of suitable cottages existing, and the building of new cottages. The general character of defects found were roofs, walls, and ceilings dangerous ; dampness and insufficient light. Twenty-three cases of overcrowding have been dealt with. Nine new cottages have been completed, and eight more are nearing completion.”

Docking.—"A general survey of the District was made by Mr. Chapman, Local Government Board Inspector, as to the Housing conditions in this District. A house-to-house inspection of the following villages has been made during the year :—Brancaster, Thornham, and Burnham Thorpe.

"Prospect Place, Brancaster Staithe.—An addition to the accommodation in these cottages obviates the overcrowding.

"Syderstone.—I interviewed the owner of six cottages in Rudham Road, Syderstone, on which I had reported last year. He promised to execute the necessary general repairs ; construct three proper privy vaults ; make cesspool for slop water ; give notice to tenants in overcrowded cottages, and, if he could get a proper rent, to gradually convert the block of six cottages into three good ones. The first three items have been executed and the overcrowding stopped.

"Ringstead.—Practically nothing has been done to the block of cottages on the Docking Road. There are no empty cottages, and I do not see what your Council can do until more cottages are built.

"Brancaster.—Steps are now being taken to remedy the sanitary defects in the cottages in Mill Road.

"Thornham.—Thorough ventilation was obtained as advised in cottages owned by the late Mrs. Ames Lyde."

Downham.—"Sufficient evidence may be gathered from the Inspector's Reports as to the need for more cottages, and especially for such as are suitable for the larger families. This will be found to be so in a much greater degree in the Fen District, where work is abundant and wages are good. The number of cottages unoccupied, with the exception of Marham, is small. Many of the cottages remain unoccupied because they are either too small for a labourer with a family or they are unfit for habitation.

"In 16 out of the 34 parishes in this District there is a general demand for new cottages. At Crimplesham there are no houses vacant. There are three houses which, unless considerably improved, will have to be condemned. In one of these houses a man who has just recovered from

a serious illness has been given notice to leave. He is unable to obtain another house in the village. At St. Germans there are seven unoccupied houses. Three of these are used for storing furniture, two are one-roomed houses, suitable only for an old person. This leaves only two available. Both of these are good houses, one being let at £8 and the other at £7 per year. At Welney the houses are of a very inferior type, and there appears to be a need for more houses. At the end of the year there were 93 notices outstanding. This is chiefly due to the fact that in most villages only one or two persons follow the trade of bricklayer, and, as most of the work is placed in their hands, the work is carried out in rotation, and consequently there is much delay.

“General character of defects found :—Walls dilapidated and damp, no spouting, roofs unsafe, ceilings bad, rooms low, floors uneven and below ground level, houses generally damp, badly lighted, windows often fixed, no place for storage of food, and no provision for the disposal of household refuse. Ten cases of overcrowding have been abated. During the year 1913, beside numerous repairs and additions to houses, there were 51 structural improvements, 37 houses spouted, and 26 rooms cleansed and lime-washed.

“Building Bye-laws came into force on January 1st, 1913, and during the year plans were approved for 16 new dwelling-houses, 8 detached and 8 semi-detached. Plans for alterations and additions to 6 houses were also approved. The new houses include 5 in Denver (including 2 pairs), 4 in Fordham (2 pairs), 6 in Hilgay (including 2 pairs), 5 in Marham (2 pairs), and 1 each in Stoke Ferry, Welney, Wiggenhall St. Germans and Wiggenhall St. Mary.

“A special Report was prepared by the Sanitary Inspector, Mr. Rigg, upon the village of Magdalen. At the time of inspection there were 183 occupied and 6 unoccupied houses, but none of the 6 unoccupied houses could be considered suitable or available for occupation. The village proper between Lodes Head and the Church comprises 107 houses. Closing orders were made in respect of 5 houses, and 2 others were reported ‘unfit.’

Several others could not be regarded as satisfactory, through bad planning. 14 houses were let under £4 and 86 at £4 to £5, 35 at £5 to £6, and 46 at between £6 and £16. The water rate is not included in the rents. One satisfactory feature is that no fewer than 146 of the houses are detached or semi-detached and are built of brick, but the absence of damp-proof courses renders many of the houses damp. The majority of the roofs are tiled, but were reported as generally weather-proof. In the living rooms the floors were below ground level in 111 instances, but the lowness of the rooms would not permit of the floors being raised. 6 of the houses were back-to-back, and in addition there were 15 houses without windows or doors in the back walls—that is, without ‘through’ ventilation. 66 houses were without fireplaces in any of the bedrooms. As regards bedroom accommodation, 45 per cent. had 3 or more, while 20 houses had only one bedroom, in one instance the cubic capacity of the bedroom being only 532 cubic feet. 2 cases of overcrowding were abated.”

East and West Flegg.—“Under the provisions of the Housing and Town Planning Act, inspections of house property up to the rental of £16 per annum are still being made in the district. As was the case last year, the parish of Caister-on-Sea was the place where the principal number of inspections were made, but property in four other parishes which was found to be in bad condition have or are being dealt with. The total number of inspections made during the last twelve months was 170, and were made up as follows: Caister-on-Sea 149, Winterton 12, Ormesby 5, Hemsby 2, Clippesby 2. It was found necessary to issue notices to have certain works done in respect of 150 houses, the remaining 20 being in such a good state of repair as to require nothing to be done to them. In nine cases closing orders had to be made, the owners of the property refusing to carry out the necessary works to make the houses habitable. Three of these notices are in abeyance, as the tenants are unable to obtain other houses to live in in this District suitable for their requirement.

“There is no getting away from the fact that, with very few exceptions, the villages in the Flegg District are short of cottages, and I should say roughly each village would do with at least twelve new ones. At the end

of the year there were still 48 notices outstanding, the requirement of which had not been carried out, but they are practically all of recent date”

Erpingham.—“There is a scarcity of cottages, particularly with three bedrooms, in almost every village in the District. At Briston 6 Council cottages are in occupation, but the row of hovels condemned as unfit for habitation are still occupied. At Edgefield 6 Council cottages are in occupation, and a great deal has been done as regards the closing or repairing of the worst cottages in the village. At Baconsthorpe 4 Council cottages will be completed and in occupation by Lady Day; 4 cottages have been reconstructed with 3 bedrooms. At West Beckham 2 Council cottages are in course of erection. At Gresham an inquiry has been held at which it was decided not to build cottages, most of the applicants being out-workers, but to build after inquiry, if necessary, in the surrounding villages. In connection with the house-to-house inspection, notices were served as regards 14 cottages unfit for habitation, but repairable. Three have been repaired, and there is a prospect that the rest will be repaired during the current year. At Plumstead an inspection followed by an inquiry was made; there were no applicants for cottages. Three cottages were condemned, of which 1 has been repaired and 2 reconstructed into one cottage. At Gimingham an inspection followed by an inquiry was made, which will result in 4 Council cottages being built and a substantial improvement in 6 other cottages, either in closure or repair. At Aldborough and Thurgarton an inspection and inquiry. Result, no application for cottages. In Aldborough 3 cottages were considered unfit for habitation, but repairable. In Thurgarton 6 cottages were considered unfit, but repairable, 2 others unfit are being repaired. Felbrigg has been inspected; no inquiry held as yet. 4 cottages have no water supply; 8 are overcrowded.

“From the above record it will be seen that great progress has been made during the year, and I am glad to say that there is no sign of slackening. At the request of the Parish Council of any village an inspection is made as soon as possible and an inquiry promptly held. In response to a genuine demand the Council have hitherto always decided to erect cottages, and I think I may say that their policy remains unchanged.

“Whilst upon this important subject it is interesting to recall that the three requirements of Buddha were, to build houses, to plant trees, and to beget male children. These requirements do not materially differ from those of the Erpingham Rural District to-day. The first requirement the Council have honourably taken upon themselves; as regards the second, I suggest that the cottages built would be improved by the planting around them of a few rapidly-growing poplar trees; as regards the third requirement, the Council having furnished accommodation for the family in the shape of 3 bedrooms, are to be congratulated that they have done all they can to help the declining birth rate.”

Forehoe.—“318 dwelling-houses have been inspected in the parishes of Wicklewood, Crownthorpe, Deopham, Bawburgh and Barnham Broom. Two houses in Hingham, after making closing orders remain in the same condition. The general characters of the defects found: roof in bad condition and insufficient accommodation. In Wymondham 21 houses have been repaired; in Cossey 1, Hingham 4, Wicklewood 7, Deopham 7, Barford 1, Morley 1, Crownthorpe 3, Bawburgh 1. Seven cases of overcrowding have been reported, and remedied. During the year 18 new houses have been built in the Forehoe Hundred: Colton 3, Costessey 1, Wicklewood 1, Hingham 3, Morley 3, Wymondham 6. I am glad that active measures are being taken by your Council under the Housing Act, as although possibly there may be sufficient room, there are very many cottages lacking proper accommodation, and sadly devoid of any comfort.”

Henstead.—“A house-to-house inspection was carried out in the parishes of Saxlingham Nethergate and Saxlingham Thorpe. No applications were received by the District Council during the year from any inhabitant, householder, or Parish Council for further accommodation for the housing of the working classes, although from this it may appear that no additional houses are required in the District. This is not the case, as in several parishes if suitable houses could be provided at a reasonable rent (say £5 a year) they would readily let. With reference to the 2 cottages condemned as unfit for human habitation, one of the tenants was still in occupation at Christmas, he pleading that he was unable to obtain another

house, although his present house is no better than a pigsty. Three cottages partly washed down by the flood last year were rebuilt and put in good condition.

“New Buildings.—10 plans were submitted and approved by the District Council as follows:—Additions to house, Surlingham; additions to house and shop, Surlingham; additions to house, Saxlingham Nethergate; conversion of house into 2 cottages at Saxlingham Nethergate; 2 new cottages, Framingham Earl; 1 new house, Hethersett; 1 new house, Holverstone; 6 new cottages, Whitlingham; 2 new cottages, Ketteringham; 2 new cottages, Kirby Bedon. All of the above have now been completed with the exception of 6 cottages, Whitlingham; 2 cottages, Ketteringham; and 2 cottages, Kirby Bedon; which are now nearing completion. Sixty-six inspections were made of new houses and 2 water certificates granted to same.”

Loddon and Clavering.—“The general character of the defects found to exist was dampness, due to defective roofs, absence of or defective troughing, defective floors, poor ventilation, and insufficient size or absence of windows. No representation has so far been actually made as to houses being required, but I have no doubt most people require an extra bedroom. As I pointed out in 1912, the majority of the houses have only two bedrooms, which is in most cases insufficient from both a health and moral point of view, and an extra bedroom also would give some facility for isolation in cases of infectious disease, especially as we possess no isolation hospital. About half the houses in the District have now been inspected, and much good work has been done by your Inspector both under the above Act and in general inspections.”

West Lynn.—“There is no particular demand for houses in the District. The chief fault with the houses (in the village) is dampness, due to leaky roofs and defective rain spouts. Two houses have been erected during the year.”

Freebridge Lynn.—"537 inspections have been made in 5 different parishes: Middleton, Grimston, Westacre, East Winch, and Little Massingham. Four cases of overcrowding have been satisfactorily dealt with. No applications for cottages to be built have been received by the District Council this year, although cottages of a different type to the present are badly wanted in every village, there being so many cottages with one or at most two bedrooms, and are not suitable for large families. 18 new houses have been erected during the year: East Winch 4, Little Massingham 2, Gayton 2, Grimstone 2, Flitcham 1, Gaywood 3, Pentney 4. The four at Pentney have been erected by the District Council in response to the Local Government Board enquiry. The various nuisances and defects complained of and detected with respect to dwelling-houses were as follows:—Defective roofs, ceilings, windows, floors, doors, leaky roofs, fixed windows, damp floors and walls, dilapidated closets, defective cesspools and well covers, blocked drains, offensive refuse heaps, foul closets and defective closet pails, insufficient closet accommodation, and a polluted water supply."

Marshland.—"There is still a demand for labourers' houses, which is being partly met at present by the erection by private owners of a number of houses in Terrington St. Clement and Walpole St. Peter, and arrangements are being made by your Council for acquiring land under the Housing and Town Planning Act, 1909, for the erection of houses in Terrington, Walpole, Nordelph and Upwell. Under the Housing and Town Planning Act, 1909, 210 houses were inspected during the year in Nordelph, Lakesend, Three Holes, Lots Bridge and Upwell. Many of the houses are very old, and if other accommodation were available I would have little hesitation in condemning them. In Nordelph in particular the condition of affairs is very unsatisfactory; a number of the houses being crowded together in a manner quite unusual in a Rural District, and few of them have any garden attached to them. Two houses were condemned as being unfit for habitation; one of these has been demolished, and in the other case the tenants have been given notice to quit. 38 houses were overcrowded on the basis adopted in the Census Returns, viz., more than two persons to a room. The following were the principal defects found on inspection:—Without

privies and defective ditto, without water supply and insufficient ditto, defective roofs, windows, etc.

“New Houses.—44 new houses were erected in the District : Emneth 10, Upwell 7, Outwell 6, Marshland Fen and Smeeth 5, Terrington St. Clement 4, Walpole St. Peter 4, Terrington St. John 3, West Walton 2, Tilney All Saints 2, and Walpole St. Andrew 1.”

Mitford and Launditch.—“The problem of housing our working-class population is one of the most difficult at the present time. Good cottages are expensive to build, and now we are adopting building bye-laws, unsuitable and insanitary buildings will not be allowed. If cottages are to be built by private individuals there must either be—(1) an adequate return for the amount expended, with allowance made for depreciation, repairs, rates and taxes; (2) every employer of labour must be compelled to provide suitable accommodation for his employees. In the first case, £150 must be allowed for building the cottage and buying the land at the lowest estimate. 5 per cent. interest on this, £7 10s.; 1 per cent. depreciation, £1 10s.; 1 per cent. for repairs, £1 10s.; rates and taxes, £1; total, £11 10s. That is 4s. per week for rent. How is an agricultural labourer with less than £1 per week to pay this and bring up a family of, say, six children? In the second case we have all the evils of the ‘tied house.’ I need not here enter into this highly controversial subject, as it has been discussed at such extreme lengths on public platforms and in magazine articles. All we might say is that with such disagreement this scheme has to be abandoned. Private enterprise being thus ruled out of court, there only remains the duty of the community.

“The present system is that if houses are wanted in any locality they are to be built, and the extra cost, if any, falls on the District. In other words, if a District is too poor to pay adequate wages it has to pay extra rates. Now, taking our District for ten years, we have had an excess of births over deaths of 1626, the population increased 264, leaving a balance of 1362. What becomes of these? The Army, Navy, Police Force, and other public services claim many of the best of our young men, others leave ‘to better themselves’ by becoming railway employees, servants, clerks,

mechanics, artisans, and various other vocations for which there is no outlet here. The young women leave to go into domestic service in London or the other counties, *e.g.*, Sussex, where the supply is not equal to the demand. Now, although I have taken the figures 1362 as the number we have supplied, that does not represent the true number, for many return 'home' broken in health and finally die here. I therefore consider that the community at large owes us a certain sum for every healthy adult that we provide for the benefit of the nation. This has already been recognised—(1) In the Old Age Pension scheme, where £13 a year is given to those past work and who have not been able to provide for old age; (2) in all the schemes of Education which are to fit the children for anything but rural life; (3) in the income-tax-paying class a reduction is allowed. On behalf of our workers I ask that the same principle shall be extended to them, to provide suitable and healthy homes.

“In my Report for 1911 I suggested:—‘A subsidy of so much per head for every child, to go towards the rent; not to be paid to the parents. This would be calculated in the same way as income-tax returns; and if, say, 10s. per child per annum were allowed on all children whose parents could earn less than £1 per week we should have very little trouble with overcrowding.’ The three years that have elapsed since writing that have only strengthened me in those views. The only alteration I should like to make is to substitute £1 for 10s., for if it pays to give £13 per annum to those past work, surely it is worth £1 to ensure healthy and sanitary homes for those who will have in the future so much to do in ensuring that this country does not become the home of a race of degenerates. For, as Goldsmith says:—

‘Ill fares the land to hastening ills a prey,
Where wealth accumulates and men decay;
Princes and lords may flourish, or may fade—
A breath can make them, as a breath has made;
But a bold peasantry, their county's pride,
When once destroy'd can never be supplied.’”

St. Faith's.—"Acting upon my report of last year on the overcrowding and insufficiency of houses for the working classes in the Parish of Horsford, the Local Government Board held a Special Enquiry on the spot on October 7th last. The Board have since declared it as their opinion that at least eight new houses, each with three bedrooms, should be built in this Parish, and I understand that an 8-acre site for these has been secured by the Council, land which has hitherto been cultivated as allotments. If these houses were planned on the ground-floor principle, with a wide verandah on the south and west aspects, so that, in case of illness, the whole bed could be brought out into the open air, I am convinced that they would be an enormous advance, as regards the health of the occupants, upon any existing houses in the District. Wood might enter largely into their construction for purposes of economy in initial outlay and increased warmth in the winter; and, there being no staircases, the risk of life from fire would be reduced to a minimum.

"Repairs and improvements have been effected to some of the houses in Horsford that I had to report adversely upon last year. The property on the Holt Road, lately owned by Mrs. Wade, has now passed into the hands of Trustees of a Friendly Society, who have converted one of the houses into two wash-houses, and have let them in conjunction with two other dwellings that were formerly without out-houses. Also a large quantity of soil has been removed from the back of the dwellings and drains laid to carry off storm-water. A late occupier (F. Lawes) of one of these houses, which was too small for his family, has since moved to a three-bedroomed cottage, formerly occupied by Mrs. Wade. Also the four cottages on the Holt Road, lately owned by Mr. Elliott, have now passed into other hands, and the new owner (Mr. I. Cannell) has made extensive structural alterations to the houses, and has put them into good habitable repair. One of the bad cases of overcrowding, reported last year, existed at one of these cottages. A case of overcrowding in Dog Lane (G. Fulcher, occupier) has been remedied by the family moving to a larger house. In Catton I condemned a house as uninhabitable during the year, and the

owner (W. Bilby), upon whom a closing order was served, has since raised the walls, added new windows, a new roof, and repaired the floors, so that the house is again habitable.

“Six other uninhabitable cottages in Catton have, through the agency of the Council, been put into habitable repair by the owner, and are all occupied. In Beeston St. Andrew three cottages were found to be in a bad state of repair, and reported upon to the Council. A copy of the Report was sent to the Agent with a request to remedy the defects. The Agent was subsequently met on the spot and the defects pointed out to him. I regret to say that the remedial work has not been carried out in a satisfactory manner, and I cannot yet pass all these cottages as habitable dwellings. Three other cottages in this parish require repairing, but so far we have been unable to get these repairs effectively carried out. In Attlebridge two good cottages, each with three bedrooms, have been built during the year, and two others have been restored to a state of habitable repair. In Swanington closing orders were served during the year on the owner (Mr. Crane) of three cottages owing to their being so damp as to be unfit for habitation. In the case of one of these the floor has been taken up, the soil drained, and the floor relaid on concrete. This house is now occupied and the nuisance abated. The work in connection with the other two houses is not yet completed. In Horstead two of the cottages demolished by the flood of 1912 have been rebuilt, and three others damaged by the same cause have been restored. Three others that were partly demolished by the flood have not yet been repaired, and remain unoccupied. During the year one new cottage has been built in this parish.”

Smallburgh.—“There is no doubt that more good cottages are required and would be hired if built in many parishes, if they could be let at a rent within the means of the labouring class. There are many houses which, though now unsatisfactory, would be and could be vastly improved by alterations and additions, if the owners were in a position to lay out money on their premises. It is not on large estates where this trouble is

generally met with ; most large property owners or their agents are willing to do all that is required. The most difficult are the small owners, people who have saved a little money and invested it, helped by mortgages perhaps, in cottage property, leaving themselves only the rents to live on and to pay the mortgage interest. They have not the means to pay a large sum for alterations or repairs. Building is now very costly. 6 new cottages have been erected by the Council at Potter Heigham. Plans for new cottages at Horning and Hickling have been prepared, and those for Horning passed by the Local Government Board. Many parishes could do with more cottages. I believe cottages would be let readily wherever they were built. A Committee has been selected to consider Bye-laws to deal with new buildings in the District, but has not yet met. Many houses have been built the last few years in the District, especially in Hoveton St. John. Owing to the absence of Building Bye-laws no supervision was possible over the drainage for these houses ; the result is that defects in construction are now being discovered and giving trouble, and complaints are being made by the occupiers. Had suitable Bye-laws been in force these complaints would have been unnecessary, and the valuable time of the Inspector might have been spent on other work in the District.

“ The practice is for the Inspector to view and record, as far as possible, all the houses in one parish ; he then communicates with the Medical Officer of Health, who visits with the Inspector all serious cases of overcrowding, dilapidated or dangerous or dirty and insanitary houses. The chief and most frequent defects to be found are damp walls, downstairs generally due to absence of damp course, upstairs to absence of gutters or breakage of gutters and down pipes, defective roofs letting in wet and rotting the old-fashioned reed ceilings ; insufficient room, light, and ventilation ; 300 cubic feet per person is totally insufficient in a bedroom with a small unopened window and no fireplace. Many houses have no fireplaces in any bedroom, and unfortunately in most cases where there is a fireplace and chimney, which would help the ventilation, one finds the chimney stopped up with a sack of straw and the fireplace carefully boarded or papered over. There is great prejudice against breathing night air. In many cases the

ceilings are too low, windows are too low in the chambers, and not large enough and sometimes will not open at all; again, if they do open it is not a large enough opening. In some bedrooms, generally built at the back over a shed or the washhouse, the slope of the roof is so steep and ceilings so coved as to make a triangular room, and the window is invariably on the floor level. The average height of ceiling is about 4 feet. It is impossible to adequately ventilate and change the air of such a room without roof ventilation. Such rooms should, in my opinion, be condemned and a house considered overcrowded if such rooms have to be occupied."

Swaffham.—"The systematic inspection of working-class houses has been continued. The parishes to which chief attention has been given are East Bradenham, West Bradenham, Foulden, Necton, and North Pickenham. The general character of defects found to exist: dampness, leaky roofs, insufficient light and ventilation, defective sanitary accommodation. Notices have been served on the owners of those cottages which were found to be in a dilapidated condition, but not much in the way of repairs has been effected. In many cottages there is insufficient bedroom accommodation. Three cases of overcrowding were abated. The village of Foulden requires further housing accommodation. An enquiry into the housing conditions was asked for by the Parish Council and held by your Council. It was found that there was a demand for more houses for the working classes. Accordingly, a report was sent to the Local Government Board, who recommended that a scheme be prepared for building six new cottages, recognising that such scheme would involve a deficiency to be met out of the rates for a time. The further action taken in the matter belongs properly to a future Report.

"Following on the communication from the Local Government Board received in September, 1912, advising the building of cottages at Great Cressingham, Holme Hale, and North Pickenham, your Council appointed a Committee to carry out the recommendations of the Board. Accordingly a suitable site has been selected and purchased in each of these three villages, tenders for the erection of the cottages accepted, and loans for the

whole scheme applied for and granted. The details relating to each parish are as follows :—

PARISH.	Amount of Loan sanctioned.		Area of Land acquired.	Weekly Rental inclusive of Rates.		Estimated Nett Receipts.			Estimated Expenditure including Loan Charges.			Deficiency.			Equivalent to Rate of
	Land.	Bldgs.													
	£	£	Acres.	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	d.
Gt. Cressingham	123	957	2	2	10½	44	0	0	56	10	0	12	10	0	2¼
Holme Hale	116	981	3	3	1	46	15	0	56	14	0	9	19	0	1¼
N. Pickenham	53	959	1·8	2	10½	44	0	0	54	7	0	10	7	0	3

“ In each parish six cottages are to be erected and finished by the end of August in this year. Each cottage is to consist of a large living room, three good bedrooms, and scullery. Eight new cottages were built during the year. The housing problem has not presented any insuperable difficulty to your Council, and the careful, businesslike way in which it has been considered, and the building scheme prepared, is worthy the notice of procrastinating Councils in other Districts.”

Thetford. “ Houses are for the most part clean and well kept, but the condition of some of those inhabited by the poorer people leaves much to be desired. Two new cottages have been built during the year. The majority of the houses inspected were deficient as regards light, ventilation, paving, and dampness.”

Walsingham.—“ Attention has been given during the year to those properties which came under notice as requiring immediate supervision, the principal defects being as I have in previous years observed, namely, dampness due to defective roofs and absence of or defective troughing, defective floors, and dilapidated sanitary accommodation. The houses inspected during the year were generally distributed throughout the District and do not represent any particular area, so that the figures given in the Sanitary Inspector’s report as regards rental, number of rooms, and number of inhabitants per house may be regarded as a fair average for this

class of cottage in the District. From a general survey of the housing accommodation of the District during the year, I would draw the following conclusions:—(1) That there is a general want of cottages with 3 bedrooms. This would obviate the overcrowding which from time to time in growing families occurs, and give some facility for isolation in cases of infectious disease. (2) That many cottages are inhabited which are in a very bad state of repair, and which continue to be occupied because there are no better to be obtained in the parish. (3) That most of the unsatisfactory cottages are in the hands of small owners, who in some cases are unable to afford the capital sum to put them in a habitable state. (4) That in the following parishes: Fakenham, Hempton, Great Ryburgh, Blakeney, Stiffkey, Hindringham, and Great Snoring, if new cottages were built at a suitable rent, they would readily find tenants.

“The case of the man —— of Blakeney, with a wife and seven children, whose house was condemned in April, 1912, is a very good example of the difficulties incurred in enforcing the statutory duties imposed on the Local Authority by the Housing Act.

“I append a statement of a Sub-Committee of the Council, which made an investigation and report to the Local Government Board:—

“‘The facts, as presented to the Council, were that —— was prior to 6th April, 1912, given notice by his landlord to leave the cottage in his occupation at Michaelmas, 1912, the cottage being in urgent need of repair. He did not obtain a house at Michaelmas, 1912, although at that time there were houses to let and changing hands, and he asked permission of his landlord to remain for another six weeks. At the end of that period he failed to relinquish possession. The state of repair of the house being deplorable a closing order was made by the Council, and on 6th April, 1913, —— was required to vacate the cottage. He failed to do so, and on 16th June an order for ejectment was made by the Holt Justices. Further proceedings under the order were delayed to enable —— to get out of the house at Michaelmas, 1913 (Michaelmas being the time when nearly all changes in Norfolk in cottage and other tenancies occur), but —— had not

vacated possession of the cottage. It was held that the facts prove conclusively that the Council had not been precipitate or in any way harsh in its endeavour to carry out the statutory duties imposed upon it by the Housing Act. Blakeney, as is known, is a decayed seaport town, having a population of 704 at the 1911 Census, the population in 1901 being 740, and in 1891 806. It is about six miles from the nearest railway station, and has not and is not apparently likely to have any new industries, the staple employment being agriculture, malting, and the shell-fish industry. In the last few years it has, however, in the months of August and September been a resort for artists and others interested in wild life, with the result that cottages have been either purchased or hired by those frequenting the town in those two months, and at the present time the number of cottages available for the working population has been lessened by some 12 to 15, all of which might at any time revert to the purpose for which they were used before. Bungalow residences have been erected in the last three years, and one or two are erected every year, and any increase in this respect will, of course, decrease the pressure on the cottages. From inquiries made it cannot be ascertained that there is any urgent demand for housing accommodation at Blakeney. The present cottage accommodation, for the reasons above stated, is fully taken up, but at any time the state of things existing a few years ago, when cottages were allowed to go to rack and ruin because they were not wanted, might repeat itself. It was pointed out that no request or representation has been made by any public authority or private individual to the Council urging the need of housing accommodation for the working classes. It was stated ——— had lived in Blakeney since his marriage, and worked for one farmer ten years in Blakeney, and for another at Glandford, in the Erpingham Rural District. If, therefore, his services are needed for agricultural work at Glandford, and there is no cottage available there, it seems to be the duty of the authority in whose district he is working to find him the necessary housing accommodation. It was pointed out that there are two cottages at Cley-next-the-Sea, in the Erpingham Union, now vacant, rent £5 each, which the owner is willing to let to anyone from whom he can be reasonably safe to receive payment of rent.

Cley-next-the-Sea is as near Glandford as Blakeney. Undoubtedly, however, the true reason for ——'s inability to find a house is due to the fact that he has a very large young family. There are seven small children, and it must be admitted the earnings of a working man render him an unacceptable tenant to anyone who has a cottage to let. The Council desired to enter a protest against a case of this kind being taken up and utilised for party political purposes. Action of this kind renders the task of a local authority to carry out its statutory duties doubly difficult. In almost every case in which the Council has to go for an ejectment order under a closing order the class of tenant is of a very poor type, as that class of house will only command that class of tenant, and no cottage owner who has any respect for his cottage cares to accept the type as tenants.'

"Six cases of overcrowding in the District were dealt with during the year. 21 new cottages for the accommodation of working classes were erected during the year, 10 of them being in the parish of Melton Constable."

Wayland.—"The inspection of houses has been made in accordance with the Housing (Inspection of District) Regulations, 1910, special attention being given to the following parishes:—Attleborough, Breckles, Carbrooke, Hockham, Larling, Roudham, Snetterton, Stow Bedon. The general character of defects found: dampness, generally due to lack of spouting, etc., insufficient light and ventilation, bad roofs, etc. Three cases of overcrowding were abated. There are several cottages which are now being repaired in consequence of the notice from your Council, but there are so many more where nothing has been done, and the specified period has elapsed or nearly so. Four closing orders have been made and several more are due, but it will be impossible to issue them for all these, as there are no other houses for the tenants to go to. This brings me to the most important point in the housing problem, that of building new cottages for the working classes. It is, in my opinion, a matter which admits of no doubt that in this District a supply of better cottages is urgently needed. It cannot be denied that there are many cottages which are not fit for habitation. Whitewash and paint on the outside of a cottage do not render

the inside any healthier. I notice lately that several owners seem to be under this impression. It is not a question of there being any demand for more houses ; I do not know that there is any such demand in any parish in the District ; the point is, that new cottages are required to take the place of dilapidated old ones. It is the intention of the Act that existing houses, which may be ample for the needs of a District, shall be made fit for human habitation where they are not so at present. If they are too old and dilapidated to stand the structural alterations necessary to bring them up to modern requirements, it is clearly the duty of the Council to build new ones to replace them and to close the old ones, thus gradually raising the standard of decent living and comfort. It is my opinion that your Council should build a block of six cottages in each of the parishes of Attleborough, Carbrooke, and Hockham. This course would not compete with and kill private enterprise, because it is not possible to build at an economic rent the class of cottage required by the Local Government Board, but it is possible for a District Council so to do, and further, this appears to be the intention of the Board, as can be shown by the following extract from a letter to a neighbouring Council :

‘The Board are advised that houses should consist each of large living-room, three good bedrooms, a scullery (with copper), a food larder and coal store, and a pail closet (placed at a suitable distance from the house). The Board recognise that any scheme for the provision of such houses may involve a small charge on the rates, but I am to state that although the Board regard it as important that a scheme for the erection of working-class dwellings under Part III. of the Act, 1890, should, as far as possible, be self-supporting, the fact that such a scheme showed a small annual deficiency would not preclude the Board from sanctioning a loan for the provision of the houses if the circumstances do not admit of a satisfactory self-supporting scheme.’

“In November a Local Government Board Inspector paid a visit of four days on a housing inspection of the District ; accompanied by the Inspector of Nuisances and myself, he visited every parish, making exhaustive enquiries. No communication from the Board had been received up to the end of the year.”

POLLUTION OF RIVERS, &c.

As stated in former Reports, there are no large manufacturing towns in Norfolk, and the question of river pollution is not so acute as in some other areas. Fakenham (which is, however, not a water-closet town) used to send its sewage (slop water, etc.) directly into the River Wensum. This has been abated by sewage works which now carry the sewage to a farm. This is the most important improvement to report. The following quotations from the Reports of District Medical Officers of Health indicate what has been or has not been done in other Districts :—

URBAN DISTRICTS.

East Dereham.—“ Considerable additions have been made to the sewerage works since 1909.”

Downham Market.—“ There is every prospect that the work (sewerage and purification works) will soon be in hand.”

Diss.—“ I think the results (of analysis of effluent) show that your sewage beds are doing their duty well.”

North Walsham.—“ There is no system of dealing with the sewage before it reaches the canal which runs along the N.E. boundary of the District.”

Thetford M.B.—“ The filters at the Quay have been reconstructed. . . Pollution has to a large extent been removed.”

RURAL DISTRICTS.

Downham.—“ The pollution of the River Ouse by the sewage from Ely and Littleport has not yet been abated. Acting upon your instructions, your Inspector and myself, in August, visited the sewage outfall at Ely and found that crude sewage was still being poured into the river. At Littleport, untreated sewage was discharged into a drain which ultimately is pumped into the river at the Ten-Mile Bank pumping station.”

Forehoe.—"There has been no material alteration at Wymondham."

Mitford and Launditch.—In 1912 the M.O.H. reported:—"Our District forming the watershed of the County, it behoves us to take the greatest care to prevent pollution; this has been done in the past years, and no fresh case has come to our notice during the year."

St. Faith's.—"No polluting streams entering the river are known to exist in the District."

Swaffham.—"No action has been necessary."

Smallburgh.—"Active steps have been taken to deal with the pollution of the Bure at Horning and at Hoveton St. John, and it is to be hoped the result will, before long, prove satisfactory."

Walsingham.—"The pollution of the Wensum will now cease at Fakenham, owing to the completion of the sewerage works."

Wayland.—"There is, with one exception, not much pollution of the streams in the District. The stream which runs through Attleborough is polluted by the discharge into it of a sewer drain from the town; the water, during the summer, being discoloured, highly offensive, and refused by cattle. I drew attention to this matter in my Report for the year 1911, when a great nuisance was caused, being especially noticeable owing to the hot weather. I again mentioned it last year. During the past year I made a special report to your Council, as complaints had been received about the nuisance from Hargham. I believe the parish of Attleborough have discussed the question, but more than discussion is required. If sufficient fall could be obtained, I see no reason why the discharge from this sewer should not be dealt with by means of septic tanks and filtration. At the other end of the town, where the sewage has been so dealt with, the result after several years' trial remains quite satisfactory; there is here a good fall."

MIDWIVES ACT.

Inspector of Midwives: Miss Bernard Boyce.

In 1913 there were 140 Midwives registered in the County. All keep Case Books and Registers and are subject to surprise visits. About 3 per cent. are still unable to write and have to seek help for the recording of their work. All have been taught how to take temperature and pulse. 1,442 (that is, 21·2 per cent.) of the 6,790 births registered in the Administrative County in 1913 were attended by registered Midwives. There were 94 notifications of sending for medical help.

Deaths of Lying-in Women ...	0
Deaths of Infants—Still Births ...	36
Prematurely Born ...	7
No. of cases of Puerperal Fever where a registered Midwife was solely responsible	1

Three Midwives whilst working as “Nurse” in connection with septic cases were suspended for 24 hours from practising as Midwives pending disinfection. No case was required to be referred to the Midwives Board. After local enquiry, one Midwife was cautioned for carelessness.

There were no Prosecutions under the Act during 1913.

No case of Ophthalmia Neonatorum was reported by a Midwife during the year. 87 notifications were received from Midwives of having laid out dead bodies.—Rule 17 (*b*). The work of the Midwives was reported by the Lady Inspector as generally satisfactory throughout the year.

DRAINAGE AND SEWERAGE.

URBAN DISTRICTS.

Cromer.—Satisfactory. 118 lin. yds. of surface water sewers laid during 1913. Closet accommodation: W.C.'s, with exception of 3 open midden privies and 6 pail closets.

East Dereham —Satisfactory. Closet accommodation: 6 new w.c.'s, 29 new pail closets, 59 vaults converted to pails.

Diss.—Excellent system of sewerage. Closet accommodation: 27 privies converted into w.c.'s. Hand flushing is unsatisfactory.

Downham Market.—Tender accepted for a sewerage scheme. Closet accommodation: 622 w.c.'s, 73 vaults, 14 e.c.'s.

New Hunstanton.—Satisfactory. Closet accommodation: All water closets.

North Walsham.—Open drains. New system required. Closet accommodation: 783 pail closets, 60 w.c.'s, 7 e.c.'s.

Sheringham.—Satisfactory. Closet accommodation: Mostly w.c.'s.

Swaffham.—Sewage farm 2 miles from the town. Closet accommodation: Mostly pail closets.

Walsoken.—Closet accommodation: 116 privies, 47 pail closets.

Wells-next-Sea.—Sewers inefficient. Closet accommodation: 12 privy vaults, numerous cemented boxes. Unsatisfactory.

Thetford M.B.—Filters at the Quay reconstructed. Result stated "satisfactory." Closet accommodation: 280 w.c.'s, 253 pail closets, 715 privy vaults.

King's Lynn M.B.—Attention given to the flushing of sewers. 12 new house drains laid, 26 reconstructed or cleansed. Closet accommodation: 25 defective w.c.'s repaired.

RURAL DISTRICTS.

Aylsham.—"The Millgate outfall has been improved by the addition of an inspection chamber and 190 feet of 9-inch pipe. The new drain connecting the Bullrush Pond outfall with the Burgh Road drain was found to be unequal to carrying the storm water, and overflowed at a manhole covering. Without much difficulty a large proportion of surface water now entering this drain can be diverted. When this surface water is provided for by the proposed new settling tank at the lower end of Palmer's Lane, and an effluent into Major Bowman's long Pond, it is not likely that the trouble will recur. The dykes at the other outfalls have been cleaned out during the year."

Blofield.—"Few of the villages in the District have any system of drainage, and no work of this kind has been undertaken during the past year. An arrangement with the Norwich Corporation has been arrived at for the reception and treatment of the sewage from the parish of Thorpe St. Andrew, and at the present time the Local Government Board have under their consideration an application for a loan to carry out an amended scheme. There is now therefore a prospect of this long-delayed and important work being shortly accomplished."

Depwade.—"61 new drains; 27 drains repaired, relaid, &c.; 65 privies repaired or re-constructed; 2 houses connected with sewer; the Beck at Harleston cleaned out. The construction of a new system of drainage at your Union Workhouse is now receiving your active attention."

Downham.—"At Hilgay, in Holt's Lane, a new length of 6-inch sewer, measuring 140 yards, was laid, and 12 houses connected. At Fincham a dyke in the main road was piped. 160 feet of 15-inch earthenware socketed pipes were used. The sewers at Fincham, Magdalen, Shouldham, and Stoke Ferry have been cleaned out. At Denver, complaints having been received as to the condition of the sewer, your Inspector was asked to make a special report."

From this report it appears that 18 houses were connected with a surface water drain which had 5 openings, each with a bell trap (an ineffective form of trap). Six trapped earthenware street gullies were fixed to replace the untrapped gullies, and a 4-inch ventilating shaft erected at the head of the sewer.

East and West Flegg.—"There is no regular system of drainage in the District. During the summer months at Caister-on-Sea the majority of the sewers were again periodically flushed by means of water supplied by the Gt. Yarmouth Water Works Company. The method used in flushing is not the best that could be provided, but it helps materially to keep the mains fairly clear and obviates nuisances in the Land Spring Dyke where such sewers discharge. The sewers flushed out were in Beach Road, Clay Road, Victoria Road, Tan Lane, Chubbock's Loke, Station Road, Buildings Loke, Yarmouth Road, and St. Julien's Road. One new hydrant has been fixed at the east end of St. Julien's Road, enabling the sewer in that road to be flushed, and also assisting in flushing the southernmost end of the sewer on the east side of the Yarmouth Road, which sewer is in a far from satisfactory condition. I would like to suggest that the Council provide a hydrant at the end of the sewer in Bultitude's Loke, so as to provide means of flushing such sewer, which I find is inclined to choke up, owing to its having very limited fall.

"During the past year the drains of various premises have either been entirely relaid or new drains provided where none existed before, and were connected either with sewers or cesspools. A new main drain is being laid at Runham so as to enable four cottages in the School Road to be effectively drained."

Forehoe.—"There has been no material alteration either in Wymondham or Hingham, and in an important town like the former a thoroughly good drainage system coupled with a perfect water supply would be a great benefit both to health and comfort."

Henstead.—“The parish of Trowse Newton is the only parish which is sewered; in the remaining parishes of the District the larger houses for the most part drain into cesspools or have some other means of artificial filters; the smaller houses into cesspools or open ditches; also the cottages where drains are provided, but in the case of most cottages there are no drains and the waste water is disposed of on the garden, of which there is generally sufficient for the purpose. 19 complete new drains were laid to existing premises, viz., 5 farmhouses, 11 cottages, 2 cowsheds, and 1 slaughterhouse. 23 houses have had their drains remodelled, trapped, ventilated, and cleansed; 8 new cesspools were provided to existing property, besides which a large number of blocked drains were cleared; 10 foul ditches were cleansed and 12 cesspools ordered to be emptied; 2 foul ponds were cleansed.”

Freebridge Lynn.—“Castleacre and Gaywood are the only two villages that have a drainage system, in all other cases the people have to dispose of their slops and refuse by taking them to their allotments or to holes dug in the garden and away from the house. Care has been taken to see that these holes are not made too big and that fresh ones be constantly made, so as to prevent them becoming a nuisance or a breeding-place for flies. 36 sanitary dustbins have been supplied to cases having no means of disposal of refuse. There is no proper drainage system in the majority of the villages of the District; the occupants of the cottages dispose of their slop and waste water by throwing it on their gardens, which in some cases is not altogether satisfactory; persons have been repeatedly cautioned about throwing the water too close to the house or to a well of drinking water.

“An extension of the sewer has been carried out along the Gayton Road in the parish of Gaywood for a distance of 197 yards; the drainage systems of two houses have been connected to it. The cesspools along part of the Wootton Road in this parish are a continual trouble; it takes up a great deal of the time of the scavenger to keep them emptied; several of the cesspools are on the premises of houses where a great deal of water is used, which fills the cesspools up very quickly, thus making it impossible

almost to cope with the supply. It would greatly improve matters from a sanitary point of view if the sewer was extended along this road and all houses connected to it. The sewer in New Road, Gaywood, has been blocked once during the year; this was attended to at once and has been working satisfactorily since. 8 new drains have been laid and connected to cesspools, and 2 new drains have been connected to a sewer. A new brick manhole has been constructed in the parish sewer at North Runcton. A new catch-pit door has been put over the clearing pit in the sewer at Harpley. The Castleacre sewer has been regularly flushed out, and the discharge pit and dykes have been thoroughly cleaned out. All the above sewers have been working very satisfactorily during the whole year. 11 blocked drains have been put in good working order; 9 defective cesspools have been altered and reconstructed; several drains of a very old type have been relaid and properly trapped and ventilated; 4 new cesspools have been built and drains connected where a sewer was not available."

Marshland.—"There is no system of sewage disposal, the houses being drained to cesspools. The excrement disposal is by means of deep covered privies which are emptied at infrequent intervals. The replacement of privies by pails is much to be desired."

Smallburgh. "Stalham is the only town in the District boasting of drains, and as I have mentioned in my last report, these are a source of danger to the inhabitants. This matter must be dealt with by the Council as soon as a pure water supply is obtained. A system of drainage is dependent largely on a sufficient water supply for keeping the drains clean and flushed."

Thetford.—"No system in the District."

Walsingham. -The main sewers in the parishes have been examined and repaired when necessary. The principal system of excrement disposal throughout the District is the pail system in seven parishes, namely, Fakenham, Walsingham, Blakeney, Stiffkey, Hempton, Melton Constable, and Great Ryburgh. This is undertaken by a village scavenger under the supervision of the Sanitary Inspector, and the general sanitary condition of

these parishes has been much improved since this system has been working. The replacement of privy vaults and middens by the pail system is steadily going on in the District, the number converted being shown in the Sanitary Inspector's Report. The Fakenham sewage disposal scheme has been practically completed. All the sewers have been laid throughout the town, the pumping station is in going order, and the outfall works are completed. The connection of existing house drains to the new sewers is now being undertaken and should be completed in the course of the next six months. A Local Government Board inquiry was held in Fakenham on December 9th for the further loan of £3,000 to complete the laying of the sewers, and a contract has been completed for £2,100 to connect existing private drains to the new sewers. The total cost of the work now stands at £15,300, a figure very considerably above what was originally estimated, but the increase is accounted for by the large amount of timber that it was found necessary to leave in the ground in the low-lying part of the town and an increase of 26 per cent. in the cost of materials. The delay in completing the work was due to the difficulty encountered at the reservoir in dealing with a very strong spring, necessitating continuous pumping, and this so affected the subsoil water as to dry up most of the wells in the central part of the town. Two water carts were kept in constant use from May till the end of August supplying water to the houses affected, and in several premises where storage tanks were used a force pump was necessary. Handbills were distributed warning householders to boil all their drinking water. I am glad to say that the health of the town did not suffer in any way; in fact, the death rate for the year was considerably below the usual average, and there were no zymotic diseases during the summer and autumn."

Wayland.—"I have not much to add under this heading. With regard to closet accommodation, constant attention is being given to the improvement of insanitary privies; 21 privy vaults have been converted to the pail system and many others repaired and cleaned. There is at Attleborough a scavenging cart, but it is not much used."

SCAVENGERING.

URBAN DISTRICTS.

Cromer.—"Refuse burnt in a destructor. The collection from each house has been carried out three times a week during the summer months and twice a week for the remainder of the year."

East Dereham.—"Council use covered carts for removal of refuse. Ashbins substituted for fixed receptacles."

Downham Market.—"Council carts remove refuse once a week. Many receptacles not satisfactory. 19 ashbins substituted for fixed receptacles."

Diss.—"Unsatisfactory. Very few houses have proper receptacles for refuse. The question of house refuse is one of our principal troubles in carrying out the Housing and Town Planning Act."

New Hunstanton.—"Refuse burnt in a destructor. (Cost £575 including repayment of loan)."

North Walsham.—"Refuse from centre of town tipped 300 yards from nearest house. (Cost £50)."

Sheringham.—"Dustbins emptied twice weekly in the Summer; once weekly in the Winter."

Swaffham.—"Undertaken by the U.D.C. - Sanitary dustbins emptied weekly, some ashpits quarterly. Most houses have pails for night soil."

Walsoken.—"Refuse sold to farmers. (Cost £40)."

Wells.—"Scavenging done by the Council. Some premises twice a week, others once a week, others once a fortnight. Improvement through more frequent scavenging."

Thetford M.B.—"Pails and vaults. Contents disposed of on land on outskirts owned by the Corporation."

King's Lynn M.B.—"396 ashbins provided. No comments in Report."

RURAL DISTRICTS.

Aylsham.—"The scavenging of Aylsham continues to be carried out satisfactorily and is of immense advantage to the town. Late in the year I made a special inspection and report on the needs of Reepham in this respect. My report showed the existence of a number of insanitary privy pits and refuse bins situated in the more crowded parts of the town. Your Sanitary Committee have resolved that public scavenging is necessary for this town, and it is now important that steps should be taken to put this into effect. Thirteen privies have been converted to the pail system and nine others have been repaired or improved. The introduction of public scavenging into Reepham will make it possible to replace by sanitary covered iron dustbins many of the old ashpits, and it is also to be hoped that pail privies will supersede the dangerous sunk-bin privies which my recent report showed to be common in this town. It is of great importance that the new privies to be built should be constructed on right principles, otherwise they may themselves prove a source of nuisance and danger. The floor space should be of concrete and the seat made as far as possible on the principle of the pedestal water-closet seat. The seat board should be on hinges, shut down almost flush on to the rim of the pail, and be not more than seventeen inches from the floor. There should be space provided for a box to hold earth and a small scoop. Some copies of a plan of a model pail-system privy would be very useful to those who will be called upon to provide new privies or to alter bin privies to the pail system."

Blofield.—"In those parishes which have been systematically inspected under the Housing Act very great improvements have been effected with regard to privies and ashpits. Sunk bins have very generally given place to the pail privy, and the necessity of a separate privy for each cottage is now recognised. Thorpe St. Andrew is at present the only parish with a system of public scavenging, but it is under the consideration of the Council to introduce the system into some of the other large villages where the cottages are crowded together with little or no garden land."

Downham.—"There is a public scavenger in the villages of Downham West, Fincham, and Hilgay, and the work has been done satisfactorily. At Southery a row of four cottages, which formerly had a very disgusting ashbin, have now been provided with galvanised iron dustbins. On making a visit here, to my astonishment I found these receptacles full of clean rain water. The tenants said it was no use putting the refuse in the bins as they had nowhere to empty them."

East and West Flegg.—"Earth closets with pails, to ensure frequent removal, are now in general use."

Forehoe.—"The earth and pail system is gradually taking the place of the old vaults; and scavengers are appointed in Wymondham and Hingham for keeping these in order. 15 additional privies have been built, besides those constructed for the new houses. Water closets are also used in Wymondham and Hingham, and some of these empty themselves into the old barrel drains."

Henstead.—"The privy, water closet, and other closet accommodation of the District is on the whole satisfactory. 8 new pail closets were provided during the year, and 1 w.c., all to existing houses. 15 privies were converted into pail closets, and 31 privies were repaired and put in good order. A large number of privies were ordered to be emptied and cleansed, mostly by verbal order at time of inspection. Scavenging is only carried out systematically in the parish of Trowse Newton, where it is done by private enterprise. The removal of house refuse and the cleansing of earth closets, privies, ashpits, and cesspools in all other cases is done by the occupiers. While carrying out inspections in the District, the attention of the occupier is called to any nuisances arising from want of removal or cleansing; 12 cesspools were ordered to be emptied, 24 privies and 5 ashpits and 12 accumulations of manure and refuse were removed, 1 galvanized iron ashbin was ordered to be provided, and 1 brick ashpit was demolished."

Loddon and Clavering.—"Both in 1911 and in 1912 I drew attention to the want of a scavenging scheme for Loddon; this I am glad to say is

now accomplished and, so far as one can judge in so short a time, appears to be entirely satisfactory. The cost at first seems somewhat heavy, owing to the initial outlay for a properly-equipped cart, but will be less next year, and the actual benefit to the health of the parish must prove in time to be inestimable. In the rest of the District 49 privies have been converted into the pail system, and 15 vaults have been reduced in size and ventilated. Various other improvements have also been carried out."

West Lynn.—"Dustbins are emptied and garbage is removed under contract fortnightly, but a complaint that a longer interval had occurred between the removals led the Council to call the contractor's attention to same and caution him to be more attentive in the future. Eight moveable ashbins have replaced fixed receptacles during the year."

Freebridge Lynn.—"Closet accommodation is mostly of the vault and pail types, and in some few places water closets. In villages where scavenging is done, 9 vault closets have been converted into pails. Insufficient closet accommodation was found in 5 cases, and 5 pail closets have been provided. Gaywood, Castleacre, and Great Massingham have a scavenger each, to collect the contents of sanitary pails, and the work has been satisfactorily done; in the few cases that we came across of foul pails, it was not the fault of the scavenger. In the case of Grimston village, 53 cases of insufficient accommodation for disposal of sewage, etc., were found, and the attention of the Parish Council was drawn to the desirability of appointing a scavenger."

Mitford and Launditch.—"We have now two villages worked by a scavenger, Litcham and Lyng, and although there was in some quarters opposition to this system it has worked to the greatest satisfaction of the inhabitants. We had the village of Shipdham inspected during the year, under the Housing of the Working Classes Act, and also to decide whether a scavenger should be appointed there. Shipdham differs very materially from Litcham and Lyng; these are villages built on a very confined area, while Shipdham, although of larger population is very scattered, and there is practically only one small part that has not adequate garden space for

emptying pails or where suitable sanitary privies could not be built, which would not necessitate such frequent emptying. Unfortunately there was a difference of opinion between the Council and the Sanitary Inspector, the Council requiring fuller reports on Shipdham to decide what ought to be done and the Inspector declining to supply them. This led to the suspension of the Inspector and consequently delay in dealing with the matter, for the Council thought it best to have the whole thoroughly dealt with and a fresh and efficient inspection made of the parish by the new Inspector when he commenced his duties."

St. Faith's.—"In general the disposal of sewage is effected by drainage into dead wells, which are periodically emptied and the contents carted on to the land. In the parish of Lenwade only does a system of scavenging exist. This was started about three years ago, and there has since been a great improvement in the general condition of the village and in the health of its inhabitants. Except in private houses there are but few water closets in the District. The bin and pan system are about equally distributed to the rest of the houses. Bins and pans are usually emptied by the occupiers; where a cesspool exists the onus of emptying this at intervals usually rests upon the owner of the property."

Smallburgh.—"The pail system is in force pretty generally all over the District, and is being used more and more as insanitary closets are discovered during house inspection under Regulations (Article V.) 1910. Practically every householder is his own scavenger in this strictly Rural District, but a system of public scavenging will have to be taken into consideration when dealing with Stalham town, as many houses have not sufficient ground on which to dispose of their refuse."

Swaffham.—"There is no drainage worthy of the name. The usual method of sewage disposal is by discharge into open ditches, and into cesspools which are not sufficiently often cleaned out, and are a source of danger to the well water. The old insanitary privy vaults, leaky and in bad repair, are still in existence, but many improvements continue to be effected by replacing some of the pail system and repairing others."

Thetford.—"Privy system nearly universal. A number of the vaults have been reconstructed and rendered watertight. The night soil is disposed of on the land and small gardens by the individual occupiers, who are responsible for its removal."

FOOD SUPPLIES.

ADMINISTRATION OF FOOD AND DRUGS ACTS.

Action taken by the Public Health Committee as recorded in Reports to the County Council :—

Date.	Prosecutions ordered.	Convictions in Prosecutions ordered at previous Meeting of the Committee.	Other Action taken.
January, 1913	3	17	A prosecution for refusing to sell a sample of milk. Result, £2 fine and costs.
April	„	3	1 caution administered.
July	„ 2		1 „ „
October	„ 21	2	3 „ „
			A milk seller was cautioned for carrying skimmed milk not being so labelled.
January, 1914	1	21	1 caution administered.

The Report of the Public Analyst for the County of Norfolk for the year ending March 31st, 1914, shows that 501 samples were analysed, of which 331 were milk. 40 of the milk samples were adulterated and 1 other unsatisfactory. 49 samples of butter were all genuine. 3 out of 5 samples of cream were adulterated, as was the only sample of suet submitted. The only other adulterated samples were 2 of baking powder out of 18 submitted. In all, 46 out of the 501 samples submitted were reported adulterated, the percentage of adulteration being 9·2.

The following is a tabular statement of the results of prosecutions :—
Results of prosecutions under the Sale of Food and Drugs Acts ordered by Public Health Committee during year 1913.

EASTERN DIVISION. Inspector, A. ROBINSON.

Sample.	Offence.			Result.
Milk	11	per cent.	deficient in fat.	Fined £1 and 16s. 2d. costs.
„	10	„	„	Fined £1 5s. including costs.
„	3	„	„	No action taken.
„	16	„	„	Dismissed. Milk held to be genuine.
„	20	„	„	Fined £1 including costs (2nd offence).
„	10	„	„	„ 5s. and 2s. 9d. costs.
„	36	„	„	„ £1 and 12s. 9d. costs.
„	10	„	„	„ 5s. and 2s. 9d. costs.
„	16	„	„	Dismissed.
„	20	„	„	Fined 5s. and 14s. 8d. costs.
„	33	„	„	„ 5s. and 21s. costs (2nd offence).
„	5	„	added water.	Caution administered.
„	8 $\frac{1}{4}$	„	„	Fined 1s. and 14s. 8d. costs.
Cream	Boracic acid, under 12 grns. per lb.			No action taken.
Suet	5	per cent.	excess of added starch.	Caution.

CENTRAL DIVISION. Inspector, JOHN RYLEY.

Sample.	Offence.			Result.
Milk	2 $\frac{3}{4}$	per cent.	added water.	Caution administered.
„	13	„	deficient in fat.	Fined 15s. including costs.
„	9	„	„	„ 5s. „
„	18	„	„	„ £3 and 12s. 6d. costs.
„	14	„	„	„ 5s., no costs.
„	11	„	„	„ 5s. „
„	10	„	„	„ £1 6s. including costs.
„	1	„	„	No action taken.
Cream	39.9	grns.	per lb. boracic acid.	Caution administered.
Milk	13	per cent.	deficient in fat.	Fined £2 14s. including costs.
„	15	„	„	„ 5s., no costs.
Cream	Boracic acid 17.36 grs. per lb.			Further sample ordered to be taken.

WESTERN DIVISION. Inspector, W. B. BARRY.

Sample.	Offence.	Result.
Milk	24 per cent. deficient in fat.	Fined 10s. and 10s. costs.
„	8 „ „ „	Caution administered.
„	30 „ „ „	Fined 10s. and 10s. costs.
„	·87 grn. per pint boracic acid.	Caution administered.
„	11 per cent. deficient in fat.	Fined 10s. and 14s. 6d. costs.
„	3 „ „ „	No action taken.
„	34 „ „ „	Fined £1 and £3 7s. costs.
„	·61 grn. per pint boracic acid.	No action taken.
„	18 per cent. deficient in fat.	Fined 5s. and 15s. costs.
„	2 „ „ „	No action taken.
„	3 „ „ „	„ „
„	6 $\frac{3}{4}$ „ added water.	Fined 10s. and 14s. 6d. costs.
„	9 $\frac{1}{2}$ „ „ „	„ 10s. and 10s. costs.
„	5 $\frac{3}{4}$ „ „ „	„ 5s. and 15s. costs.
„	6 „ deficient in fat.	No action taken.
„	1 $\frac{3}{4}$ „ added water.	Caution administered.
„	8 $\frac{1}{2}$ „ „ „	Fined £1 and 12s. costs.
Baking Powder	75 per cent. deficient in available carbonic acid and 56 per cent. deficient in total ditto.	Fined £2 and £2 12s. costs.
Milk	2 per cent. deficient in fat.	No action taken.

ACTION TAKEN BY BOROUGH COUNCILS.

URBAN DISTRICTS.

King's Lynn M.B.—“ Under the Public Health (Milk and Cream) Regulations, 1912, 15 samples of milk were examined for the presence of a preservative and reported genuine in this respect. Under the Diseases of Animals Act (Tuberculosis Order of 1913) one cow from a cowshed and four other cattle from the Cattle Market were slaughtered and destroyed on account of Tuberculosis.”

Thetford M.B.—"30 samples of new milk were submitted to the County Analyst, resulting in 4 convictions. 63 samples were tested locally by a lactometer."

SUPERVISED PREMISES.

URBAN DISTRICTS.

Cromer.—"Under the D. C. and M. Order the M.O.H. made a general inspection, visiting 10. Fish shops have also been visited."

East Dereham.—Cowsheds and dairies, bakehouses, and slaughterhouses have been inspected. "The situation of some of the slaughterhouses in the most crowded parts of the town, although convenient for business, is not in agreement with modern views."

Downham Market.—Byelaws are in operation with respect to dairies and cowsheds, and slaughterhouses. 5 registered dairies and cowsheds periodically visited. "The 10 bakehouses (none underground) and 10 slaughterhouses are satisfactory."

Diss.—6 registered cowkeepers, dairymen, and purveyors of milk; 4 registered purveyors of milk only. "Some of the cowsheds and yards are in a deplorable condition. . . . I hope to bring detailed reports before you at an early date." 4 registered slaughterhouses "fairly well kept, but some improvements may be effected when the new byelaws come into force."

New Hunstanton.—12 visits to bakehouses and 5 visits to dairies and cowsheds by the Inspector. "No action has been necessary."

Sheringham.—No slaughterhouse in the Urban area. 11 registered milksellers, 7 dairies, and 2 cowsheds have all been inspected and found generally "satisfactory." Byelaws are adopted and enforced.

Swaffham.—"During the year all the dairies have been inspected by me, and in some cases I have recommended cleansing more often."

North Walsham.—4 dairies and cowsheds in the District. Some improvements have been made in these during the year. No byelaws. No special tests made with reference to tuberculous cows. Frequent inspections of the slaughterhouses have been made, but “not specially visited at the time of slaughtering.” No milkshops.

Walsoken.—“There are no milkshops existing. . . . It has not been found necessary to condemn any foodstuffs.”

Wells.—“4 registered slaughterhouses, 38 inspections; 6 cowsheds, 40 inspections. The defects noted in 1912 have not been rectified. No instances of unsound food being exhibited for sale.”

MUNICIPAL BOROUGHES.

King's Lynn.—32 workshop bakehouses; 63 milksellers, including 27 milkshop proprietors; 15 cowkeepers and milksellers within the Urban area and 21 residing outside the Borough boundary. The Inspector writes :—“As far as possible my visits have been made at the time of milking. . . . I find that cowkeepers and dairymen are more enlightened than formerly as to the necessity of keeping milk free from contamination.” There were made 1144 inspections of slaughterhouses, 64 of bakehouses, 126 of dairies and milkshops, and 38 of cowsheds. During the year 303 stones of meat were condemned and forfeited—5 carcasses of (tuberculous) beef, 8 carcasses of mutton, 1 carcase of pork; 2 barrels of shellfish, 39 stones of codfish, 7 beasts' livers, and 2 sets of offal.

Thetford.—“The bakehouses and slaughterhouses]regularly inspected. Structural improvements required and carried out at one slaughterhouse. No tuberculous meat was seized.”

RURAL DISTRICTS.

Aylsham.—“Byelaws with respect to cowsheds and dairies are in force; but, with few exceptions, the construction of the premises is such that it is impossible to comply with them. It is the exception to find a

cowshed that has been built for the purpose for which it is used, and the adapted stables, bullock-sheds, and barns are seldom satisfactory. Some of the larger milk purveyors decline to accept milk from dairies until satisfied with their sanitary condition, and it was through a well-known London firm that I had information of a dairy recently started in the District which was unregistered. Some considerable improvements were carried out in the drainage and other arrangements connected with this dairy. The bakehouses have been inspected and found in a satisfactory condition. The slaughterhouses are, almost without exception, situated in the crowded parts of the small towns, and, as might be expected, nuisances frequently arise in connection with them. It is difficult to see how it would be possible to remove slaughterhouses, which have been established for a number of years, to more suitable positions without inflicting very heavy loss on the present occupiers. The greatest care is necessary to keep them in a fairly sanitary state. The question of applying for byelaws regulating slaughterhouses was considered in my Annual Report for the year 1911."

Depwade.—"Bakehouses, slaughterhouses, and knackers' yards were inspected. A quantity of unwholesome meat was seized, but no prosecution was undertaken. The Council proposes to adopt byelaws for slaughterhouses. Of 35 dairymen and milk purveyors on the list, 11 were registered during the year."

Downham.—"Regulations with respect to dairies and cowsheds have been in force in the District since 1905. There are now 17 registered premises, 3 having been registered during the year and 1 having left the District. New cowsheds have been constructed at West Dereham and Magdalen. 4 dairies send milk outside the District and 7 sell milk locally. There are 31 slaughterhouses; 191 inspections were made and 403 carcasses examined. 3 slaughterhouses have been closed owing to the occupiers discontinuing business. 1 carcase of mutton found to be diseased was surrendered and destroyed."

East and West Flegg.—"Periodical inspections have been made of the dairies, cowsheds, and milkshops registered under the Order of 1885. The majority were kept in a cleanly and wholesome condition, but notices had to be served to clean up and limewash a few cowsheds. Two cases where overcrowding of the cows was existing were also dealt with. One dairy and cowshed was registered during the year."

Henstead.—"Cowsheds and dairies: at the end of the year 1913 the register contained the names of 38 persons. 98 inspections were made to cowsheds and dairies, which were on the whole satisfactory. 7 cowsheds were ordered to be limewashed, 1 dairy was ordered to be painted with white enamel paint, 2 accumulations of manure were removed, 1 existing cowshed was redrained, 1 new water supply was provided, and 1 new cowshed was erected."

Loddon and Clavering.—"The various dairies and cowsheds have been systematically inspected. All the defects found were promptly remedied."

Freebridge Lynn.—"Cowsheds and dairies have been frequently visited, and instructions given in 6 cases to cleanse and limewash, and in 4 cases structural defects were found and are being attended to. Bakehouses visited and found satisfactory. Slaughterhouses have been frequently visited and are kept in a satisfactory condition. No unsound or diseased meat has been found."

Mitford and Launditch.—"31 cowsheds, 19 dairies, 8 slaughterhouses, and 19 bakehouses were inspected. The milk supply is good."

St. Faith's.—"The milk supply of the District comes from several small dairies within the District and from farmers who keep one or two cows. One suspected case of Mammary Tubercle in a cow at a small farm in Felthorpe (Hawes, occupier) was discovered by the owner and reported to the Veterinary Surgeon, under whose advice the cow was isolated and not used for milking purposes until it had recovered. No prosecutions, so far as I know, have been made during the year for selling unwholesome food in the District."

Swaffham.—"Under the Dairies, Cowsheds, and Milkshops Order of 1885, all the premises have been regularly inspected and are in a satisfactory condition; there are 52 on the register. Several cases of Tuberculosis in cattle have been discovered and dealt with. No action has been necessary on account of unsound food."

Thetford.—"Dairies and cowsheds are regularly inspected and are fairly well kept. The milk supply is fairly good. The few slaughterhouses are in good condition and well kept."

Walsingham.—"The bye-laws in connection with slaughterhouses have been adopted in 17 parishes. They have all been frequently visited, and are all clean and well kept. No carcasses have been found to be tuberculous. Cowsheds and dairies have been inspected during the year and verbal notices given as to cleansing and whitewashing. There are now 33 cowkeepers registered in the District, and the number of cows kept has increased to 682. On enquiry I find that the majority of these cows have been submitted to the tuberculin test, with the satisfactory result of only one being notified under the Tuberculosis Order of 1913, and the cow being destroyed. There is each year an increased amount of milk sent out of the District, principally to London and Norwich. The cleanliness, ventilation and drainage of the sheds are quite satisfactory. No disease has been traceable to the milk supply in the District."

Wayland.—"No action has been necessary on account of unsound food. Under the Dairies, Cowsheds, and Milkshops Order, 1885, all the premises have been inspected; only minor defects were found and have been remedied."

ISOLATION HOSPITAL ACCOMMODATION in the Administrative County of Norfolk.

The City of Norwich and County Borough of Great Yarmouth are not included in the area of the Administrative County. Apart from the fact that the Rural District of St. Faith's has an agreement with the City of Norwich as to receiving cases of Small Pox, the isolation hospitals provided by the Corporations of these two towns do not in any way affect the needs of the Administrative County area.

In my former Annual Reports, and occasionally in Quarterly Reports to the Public Health and Housing Committee of the County Council, I have drawn attention to the points which need consideration in connection with the establishment of isolation hospitals.

Generally speaking (see Report of C.M.O. for 1908, pp. 31-35), "if a disease is infective it is a matter of common sense that the *efficient* isolation of an infected person must reduce his power of infecting others."

The Rural Districts in Norfolk are, with one exception (West Lynn), of *wide* area, and are all *sparsely* populated. The Urban Districts have *small* populations, the largest being King's Lynn with a population of just over 20,000; no other Urban District in Norfolk can boast of even 6000 inhabitants. Consequently, no *single* Sanitary District in Norfolk thinks it can afford to keep a permanent staff at its own independent isolation hospital always prepared to take in any case of infectious disease. No existing isolation hospital in the Administrative County has a Medical Superintendent responsible for its administration. The best provision hitherto made is by the Cromer U.D.C. The Cromer Isolation Hospital has a brick isolation pavilion of two wards with six beds, a detached administrative block for a resident Nurse-Matron, and a laundry block with mortuary and disinfector (Thresh). The hospital is situated at Roughton in the Erpingham R.D., three miles from the town. Recently, I think that telephonic communication between the hospital and the town has been established. The site is ample in area, the situation open and healthy, and the water supply satisfactory.

Cromer being a health resort of repute, has felt the necessity of providing this isolation hospital accommodation—the original cost of the hospital being £3876 10s. 1d. The plans were approved by the Local Government Board and a loan sanctioned which fully covered the cost. Negotiations have, I believe, been attempted in the past on behalf of the Erpingham R.D. to come to some arrangement with the Cromer U.D.C. as to isolation of certain cases from the Rural District; but, not unnaturally, have proved abortive. In 1913 the Erpingham R.D. decided to provide isolation hospital accommodation for the Rural District, the site being also at Roughton, within a short distance of the Cromer Isolation Hospital (see below). To one not connected with the local governing bodies it seems uneconomical to have provided two separate sites, to include separate fences, administrative buildings, water supplies, etc., in one parish area.

Following on suggestions I made in my Annual Reports for 1909 and subsequent years, and by Dr. Back, their own District M.O.H., in 1911, the Rural District of Blofield approached the County Council towards the close of 1911 as to taking action towards the provision of isolation hospitals. At the same time the Blofield R.D.C. approached other Rural Sanitary Authorities in the County. A few were of opinion that isolation hospitals could best be provided by the County Council, but there seemed to be some difficulty in District Councils agreeing to take the initiative under the Isolation Hospitals Act, 1893, and applying as a combination of District Councils to the County Council to make an order establishing a hospital area. It was suggested as an alternative that the County M.O.H. should be requested to formulate a Scheme for the combination of Rural and Urban Sanitary Districts into, say, half-a-dozen areas, and that then the Sanitary Authorities in such area should be communicated with to ascertain whether they would consent to the Scheme. After carefully considering the run of the roads, the centrality of a hospital for a combination of districts, etc., I suggested five areas (see Annual Report of C.M.O. for 1911, p. 127) as workable hospital districts with the aid of motor ambulances. I have not heard what are the views of the several Districts suggested in these combinations, but the following quotations from the

Reports of District Medical Officers of Health appear to indicate that several District Councils are in favour of a County Scheme:—

RURAL DISTRICTS.

Aylsham.—Dr. Back, M.O.H., writes: “The whole question of the provision of the means of isolation for the District has been under discussion at more than one meeting of the Council, but with no more definite result than that it would be wise to wait for some scheme to be formulated for the whole County.”

Blofield.—“No progress has been made by the Norfolk County Council in carrying into effect the proposals, initiated by your Council in 1911, for the provision of hospitals for the isolation of cases of infectious disease occurring throughout the County. In the meantime your District remains without any means of isolation although cases of urgency are continually arising. A notable instance occurs in my Annual Report for this year, where, under the heading of ‘Scarlet Fever,’ is described the spread of the disease to six children from a single case which, had there been the opportunity, would have been isolated at the outset. In a neighbouring Rural District some private individuals, recognising the danger of being unprovided with the proper means of dealing with infectious disease, propose to establish an isolation hospital on a voluntary basis. In other Districts the provision of small cottage hospitals, which must necessarily be both expensive and inefficient, is contemplated. From time to time proposals have been made to set up such an hospital in your District, but I have thought it my duty consistently to oppose any scheme of the sort, believing that, sooner or later, the County Council would take the matter in hand and establish a sufficient number of well-equipped hospitals to serve the County area efficiently and with economy.”

Depwade.—Dr. Maidment writes:—“Owing to the wideness of the District and comparative sparse population, the Zymotic diseases are well controlled immediately notification takes place.”

Downham.—Dr. Cross reports :—“ There is no isolation hospital in the district. A large tent with two beds is kept at the Union Workhouse for cases of Small Pox, but has never been used. It is still to be hoped that the County Council or other bodies interested will co-operate in providing some joint scheme of hospital isolation suitable for the needs of this and the adjoining districts. Failing this I think some scheme might be jointly arranged by your Council and the Urban District Council to provide isolation accommodation, not only for the two districts, but at the same time for the Union Workhouse. In my report for 1908 I alluded to this possibility.”

Erpingham.—Dr. Linnell says :—“ There is no isolation hospital. Last year I reported that a site had been leased for the erection of an emergency isolation hospital at Roughton on the Northrepps border. During the year a deep well has been sunk upon the site, and a good and abundant supply of water obtained in the chalk at about 270 feet. The Council are considering the erection of a hospital of from 4 to 6 beds, and have decided to build at once an administrative block, and to put up a pump to raise the water. During the year the question of adding wards will come up again for discussion. At the recent discussion the feeling was in favour of the principle that an isolation hospital should exist, the difference in opinion being about the speed with which the money should be found to finance the scheme. The decision to erect an administrative block and pump was the compromise arrived at, and there is no doubt in my mind that the Council during the next two years will add the necessary pavilions and provide a steam disinfecter. Expense *has* to be considered, and while my personal opinion is that the Council were over-cautious in not deciding upon the full scheme, the argument advanced that, owing to the expenses of the disastrous flood of 1912, this is a time to somewhat curtail present expenditure is reasonable.”

Henstead.—Dr. Burton writes : “ No isolation hospital is provided, and the only means of isolating the cases is at home, which in most cases cannot be efficiently done, or done at all ; so under the circumstances it is really a wonder there are not more cases.”

Walsingham.—Dr. Fisher reports : “ The question of the necessity of an isolation hospital was fully discussed at a meeting of the Board on December 17th, in connection with the outbreak of Scarlet Fever at Stiffkey. The necessity of an isolation hospital for the District was definitely admitted, but on financial grounds it was unanimously postponed for the immediate future.”

URBAN DISTRICTS.

King's Lynn M.B.—Dr. Kingdon writes : “ Infectious Disease Hospital, Hardwick Road. This hospital, which was renovated according to my Report of 1909, has been kept in a satisfactory condition, and is capable of receiving 12 patients, 6 in each ward, which are completely isolated one from the other.”

Cromer.—Dr. Colvin Smith reports :—“ The Isolation Hospital has been open almost continuously for the last nine months of the year, a case of measles having been admitted in the beginning of March. Nineteen cases in all have been treated with an average period of detention of 31 days. During this year I have been able to admit cases of Enteric, Measles, Diphtheria and Scarlet Fever, avoiding the simultaneous treatment of two diseases as far as possible, which I was fortunately able to do, and by careful disinfection of wards, etc., with no bad results. I have much pleasure in reporting that the care and kind attention of the Nurse Matron, Miss Lapham, has materially assisted both to the above result and the general satisfaction shown by the happiness of the little patients while under her charge and their unwillingness to leave ; needless to add that I have received no complaint. She has had the assistance of temporary nurses when necessary as well as a new probationer. In connection with the working of the Isolation Hospital I wish to bring again to your notice the necessity of having telephonic communication with Cromer in case of emergencies.”

East Dereham.—Dr. Belding writes :—“ Isolation is very difficult in an ordinary cottage.”

Downham Market.—Dr. Cross writes :—“ I should like to draw your attention to the question of providing isolation accommodation for infectious disease. In the past the necessity for such has fortunately been very small, but it would be as well to look seriously into this question and to provide for eventualities. It is hoped that the County Council or other bodies interested will co-operate in providing some joint scheme of hospital isolation suitable for the needs of this and the adjoining districts.”

New Hunstanton.—Dr. Sumpter reports :—“ I am glad to be able to report that the necessary additions to the Isolation Hospital have now been carried out.”

Sheringham.—Dr. Linnell reports :—“ There is no isolation hospital. During the year the Council have approached the Erpingham Rural District Council with a view of joining them in their contemplated emergency isolation hospital at Roughton.”

The figures from which percentages are calculated in the table in the Section on Infectious Diseases as regards Scarlet Fever, Diphtheria, and Enteric Fever, are taken from the Annual Reports of the District Medical Officers of Health. These are the 3 Infectious Diseases for which isolation is usually afforded in fever hospitals by many Sanitary Authorities in England. The table makes it clear that hospital isolation is not generally practised in Norfolk. For instance, of 233 notified cases of Diphtheria, only 6 were isolated in Hospital (all in Cromer) ; of 621 cases of Scarlet Fever only 30 were isolated in Hospital (19 out of 89 cases which occurred in King's Lynn, and 11 out of 12 cases which occurred in Cromer) ; of 81 cases of Enteric Fever only 4 were removed to Hospital, 1 to a Workhouse Infirmary, 1 to a Cottage Hospital, and 1 to the Cromer Fever Hospital ; of 3 cases at Downham Market one occurred in the Workhouse, having been brought from an adjoining District.

I see no reason to alter the opinions I have expressed and the suggestions I have made in former reports for isolation hospital accommodation to generally meet the needs of the County as a whole, viz., a few large County

Hospitals contributed to by several combined Sanitary Districts, each to be provided with a permanent staff, and with motor ambulance, mortuary, and steam disinfectors.

DISINFECTION.

Were Isolation Hospitals instituted, each with a steam disinfectors, and arrangements made for conveying infected bedding, etc., for efficient steam disinfection, more satisfactory disinfection would be possible than is at present carried out in the greater part of Norfolk. At present it is almost, if not quite, impossible to isolate a case of infectious disease occurring in a family living in a small cottage—very frequently other occupants have to share a bedroom with the patient, and equally often the patient is taken into the living room before he is free from infection. It is clearly next to impossible to secure satisfactory disinfection of the whole house and its contents while it is still occupied by such means as formalin or sulphur vapours. Could a case be removed on notification to an isolation hospital, disinfection could be practically limited to his bedding and clothes, preferably by means of steam.

Very few of the Reports of the District Medical Officers of Health give details as to the methods of disinfection employed. In a general way efficiency and economy would be secured by the application of common-sense in regard to disinfection. By disinfection is meant the removal of the causes of infection. These causes are generally the low microscopic forms of life known as germs or bacteria. Their powers for evil are chiefly connected with the mucous membranes and discharges of the *persons* infected. Methods which pay disproportionate attention to objects and rooms as compared with individuals are liable to fail. Not infrequently it happens that after a patient who has had Scarlet Fever or Diphtheria has been declared convalescent, the sick room is disinfected by the Sanitary Authority, and the patient is released from quarantine—yet a fresh case forthwith occurs. Generally it will be found that the infected *person* still has (or has recently acquired) a discharge from the nose or ear, or skin (eczema), and

is the source of the fresh case. This fact shows that every precaution should first be taken to ascertain that the *patient* is free from any nasal or aural discharge or eczema as an essential requirement before being allowed to mix with others.

The amount of disinfection of the infected bedding, clothes, and room which may be required will vary with the amount of care that has been taken during the illness to limit such infection of extraneous objects. All clothes and linen which can be boiled should be so dealt with, particular attention being given to handkerchiefs, pillow-slips, and sheets, both during and after the illness. Pillows and mattresses and tweeds are best dealt with in a steam disinfector. King's Lynn and Cromer have such steam disinfectors. The majority of the Sanitary Districts, however, do not employ steam disinfection—but use either sulphurous acid gas or formalin vapour or spray.

Fortunately, external objects, apart from pillow-slips, sheets, and handkerchiefs, which can be boiled, and the clothes of the patients and of the nurses, which should be steamed, are rarely infected if simple precautions are taken. The usual methods of fumigation suffice for these external objects provided this is followed by the mechanical removal of dirt by scrubbing with soap and water. Indeed, I would attach more importance to the *mechanical* removal of germs and dirt by soap and water with friction than to the gaseous (possible) disinfectant. There is an advantage, however, in the old-fashioned sulphur fumigation, its odour being so unpleasant that the occupants are fain to air the room well and to scrub it down properly to remove the odour. But as already emphasized, attention must be given chiefly to the infected *person*. Fortunately in the case of Diphtheria much assistance is given in ascertaining when a patient is probably free of infection by careful swabbing of nasal and throat mucous membranes for bacteriological diagnosis. As long as the Diphtheria germ is found in such swabbings, the patient obviously ought not to be released from quarantine. Negative swabbings of course do *not* absolutely *prove* that the patient is free from infection, but justify this assumption more

especially where a *second* or *third* swabbing with negative results has been carried out.

In the case of Scarlet Fever bacteriological aid is not available in the same way, but if nose, throat, and ears appear quite normal and there is no moist peeling of the skin after some weeks from the beginning of the illness, there is fair presumption that the case is no longer infective.

Disinfection of cottages in rural areas can rarely be carried out effectively. As a rule the patient has not been confined to one room, but has also had the run of the living room when convalescence sets in. It is obviously impossible to "sulphur" at one time every room in the cottage, unless temporary accommodation is provided elsewhere for the inmates. Consequently so-called disinfection is generally limited to the room in which the patient slept, and it is clear that if objects are easily infected the disinfection of one room only is inadequate, since the patient had access to all the rooms.

In King's Lynn, where there were 181 notifications of infectious disease (including 64 tuberculous cases), 952 articles were treated at the steam disinfector and 23 articles were destroyed.

The following are references to disinfection found among the Reports of the District Medical Officers of Health :—

RURAL DISTRICTS.

Blofield.—"In all cases of Scarlet Fever the room occupied by the patient is carefully sealed and treated with formic aldehyde vapour, the clothes and other infected articles being spread out and exposed to the fumes. In cases where the patient has not been kept strictly to one room throughout the illness any disinfection possible becomes almost valueless. Rooms occupied by persons who have died of Phthisis and in some cases of Cancer have also been treated with formic aldehyde vapour. In Diphtheria precautions are taken during the progress of the case, disinfectants being freely used, but disinfection by fumigation is not usually carried out."

Smallburgh.—"Formalin is used both as spray and with lamp fumigator."

Thetford.—"The medical man in attendance notifies the Sanitary Inspector when the case is ready for disinfection. The Sanitary Inspector then thoroughly disinfects the premises by spraying and fumigating with formalin. The bedding is destroyed by burning where necessary, the owners being compensated by the Council."

Walsingham.—"A card is furnished to the doctor in attendance, who notifies the Sanitary Inspector when the house is ready for disinfection, which is accomplished by formic aldehyde gas, and the walls sprayed by the same disinfectant. Any article of clothing or bedding which cannot be disinfected is destroyed and the owner compensated."

URBAN DISTRICTS.

Thetford M.B.—"On the termination of a case notified by a doctor the premises are disinfected by spraying the walls, floors, bedding, clothing, etc., with a disinfectant solution and afterwards fumigating the rooms by means of formalin lamps. The house is then thoroughly cleansed and usually the paper stripped from the walls of the sick room."

Sheringham.—"The present system of disinfection by means of formalin spray and vapour is good as far as it goes, but the only effective method of disinfecting bedding and clothing is by means of super-heated steam under pressure."

Diss—"Most of the houses were disinfected after the recovery of the patients; disinfectants were also supplied free of charge to those who cared to avail themselves of the opportunity thus given of taking extra precaution."

METEOROLOGICAL NOTES.

As usual, I am indebted to the courtesy of Mr. A. W. Preston, F.R. Met. Soc., of Norwich, for the notes from which the following summary is compiled :—

Mean barometric reading for the year 1913	...	29·949 inches
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Air Temperature—

Maximum (June 17th)	...	83·1 degrees
Minimum on grass (January 14th)	...	23·7 „
Mean temperature of year 1913	...	49·8 „
Above average by ...	...	0·9 „
Mean relative Humidity (9 a.m.)	...	81·0 p.c.

Rainfall—

Total fall at Norwich	...	24·42 inches
Below Average by ...	...	1·33 „
No. of days on which rain or snow fell	...	184
Wettest Month, October	...	3·83 „

Bright sunshine recorded during	...	1432·9 hours
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Cromer	...	Rainfall	...	16·20
Lynn	...	„	...	21·46

